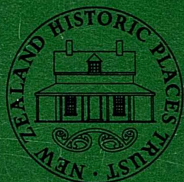
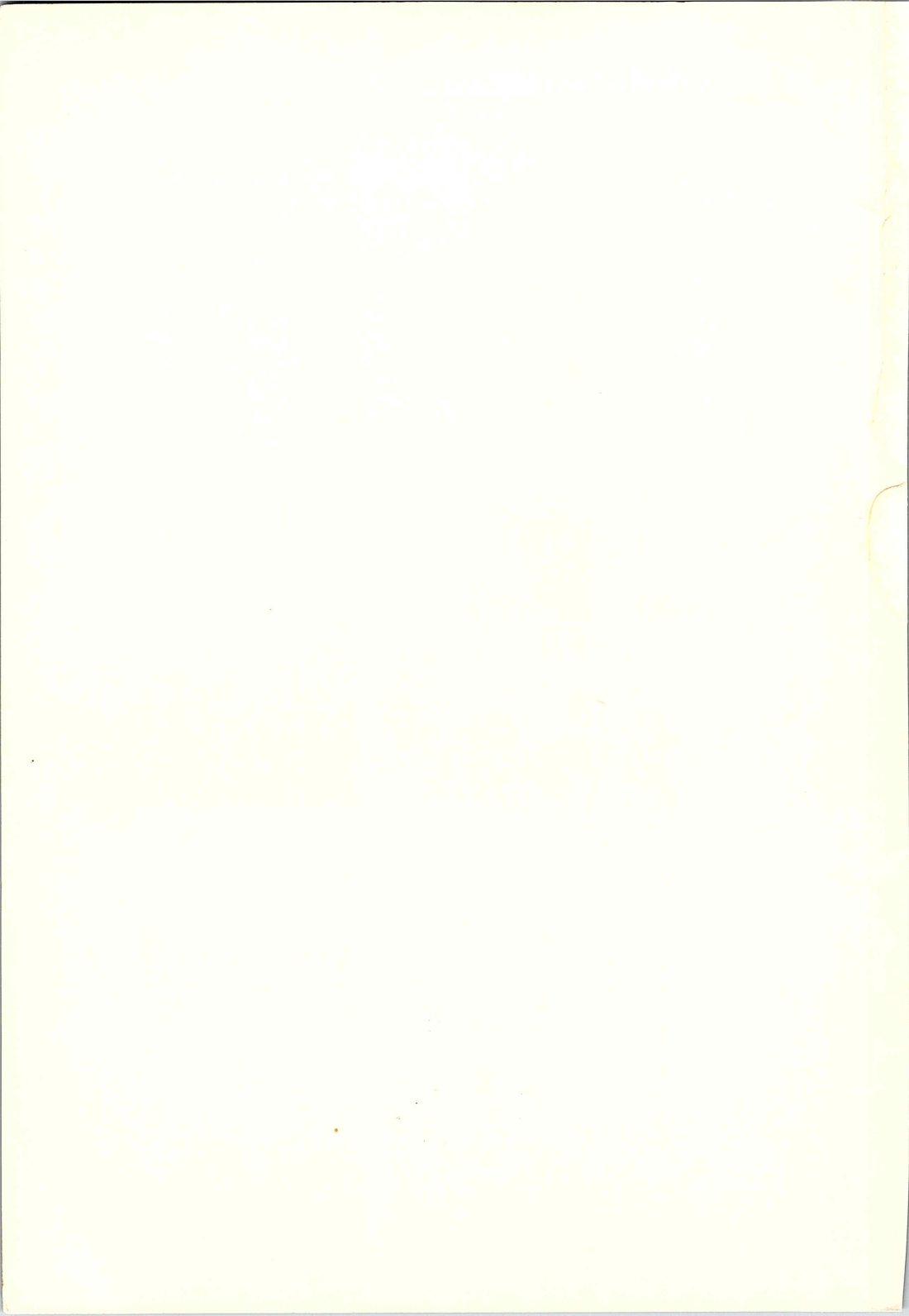


TOTARA ESTATE





TOTARA ESTATE



'Dunedin' clearing the Otago Heads, February 1882'
from a painting courtesy New Zealand Meat Producers Board

TOTARA ESTATE

Centenary of the Frozen Meat Industry

MARTINE E. CUFF

NEW ZEALAND
HISTORIC PLACES TRUST
WELLINGTON

New Zealand Historic Places Trust
Totara Estate Centennial Project

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FOREWORD

In 1979 the New Zealand Historic Places Trust and the New Zealand Meat Producers Board agreed to mark the centenary of the frozen meat export industry by establishing a public park at the Totara Estate, 8kms south of Oamaru. The owner readily agreed to the sale of land and the Trust decided to restore the old farm buildings.

Archaeological and historical research confirmed that the events which took place at Totara in 1882 were of exceptional importance in New Zealand history. From the trial shipment of frozen meat a chain reaction seemed to reach out to every part of our national community. So the Trust formed a National Advisory Committee which included representatives from the various sectors of the meat export industry. In addition a local committee led by the North Otago Federated Farmers planned the details of the centennial celebrations on 15 February 1982. Our thanks are due to all these people who so generously helped in the Totara Estate Centennial Project.

The architect, the engineer and the craftsmen who carefully restored the historic buildings deserve the greatest credit for their work which will delight the eyes of all future visitors. And the display artists have illustrated the importance and significance of the events which took place at Totara.

It is a pleasure to record our thanks to our research historian, Miss Martine Cuff, who has written this account of the Totara Estate. Long after the celebrations of the centenary have passed, the Historic Places Trust hopes that the restored buildings of the Park and this written history of the Totara Estate will continue to remind us of the important part it played in the development of New Zealand.

Dunedin.
February, 1982.

N. C. Begg, O.B.E.
Chairman, New Zealand
Historic Places Trust



The Totara tree after which the district and the Estate are named. It was removed in 1949

The Early Years

The First Settlers

In the 1840's New Zealand was sparsely populated by Europeans, but immigration and the gold rushes of the 1860's soon changed that. Early travellers in Otago could easily be regarded as explorers in an unknown land as there were few native tracks to guide them over the tussock grasslands. One such traveller was Walter Mantell who made a journey from Kaiapoi to Otago in 1848. On the way he described an area of land just south of present-day Oamaru as Ototara, 'place of the totara'. He was referring to a single totara tree growing on a prominent limestone outcrop which became a noted landmark.

The first man to occupy the Totara district was a Swedish sailor Charles Eberhard Suisted. He arrived in Wellington in 1842 when the future capital city was a small town of wood and raupo cottages. Suisted took over the licence of Barrett's Hotel and made quite a success of the business. Later he was joined in Wellington by his wife Mary Emma, their children and Robert and Emma Richmond, his wife's parents. Suisted and his father-in-law soon became interested in acquiring some of the thousands of acres of land in Otago which seemed to be there for the taking. In 1847 Suisted came down from Wellington to look over the country and over the next few years established himself and his family at Goodwood, just north of Waikouaiti. Some land was purchased for his homestead but by 1851 his stock were grazing over 50,000 acres as far north as Oamaru. Six Scots shepherds were employed to watch over the sheep including Robert Grieve who was

Totara Estate

responsible for the northerly part of the run. Grieve was the first man to take sheep over the Kakanui River to the Totara country and he slept in the cave under the totara tree.

Suisted applied for a depasturing licence, or grazing rights, for a tract of land north of the Waianakarua River. On 1 September 1852 he was granted a licence for Run 12, which included land as far north as the Kakanui River and, on the same day Run 13, encompassing land between the Kakanui River and Oamaru, was licensed to Robert Richmond. Three years later Richmond transferred his licence to his son-in-law.

In the following years Suisted gradually handed over his interests in the runs to Edward McGlashan, a merchant and auctioneer. McGlashan later sold Run 12 to F. and W. Fenwick and by 1860 Run 13, except for a small part purchased by W. H. Teschemaker in 1857, had been transferred to Mathew Holmes.

The Holmes Association

When Run 13 came into the hands of Mathew Holmes it was the beginning of an era in Totara's history. From 1860 till 1907 the development of the estate was ordered from Scotland. Holmes was born in County Tyrone, Ireland in 1817. He was brought up to a commercial life and after spending some time in Australia developing business interests he returned to Great Britain in 1854. As his grandson later wrote 'the pioneer spirit was however too strong for him'¹ and he departed for New Zealand to buy land for himself and two business associates, Lewis Potter and Thomas Gray Buchanan. Together they established the Holmes Association, a kind of unincorporated company, and as Holmes had a good eye for land the Association acquired many fine properties in the South Island, one of which was Totara.

In 1861 the Association's hold on Totara was placed in jeopardy by the extension of the Oamaru Hundred to include all the land between the Kakanui and Waitaki River mouths. A hundred was an area of land made available for free-



Charles Eberhard Suisted (1810-1860),
pioneer runholder in North Otago



Robert Grieve, who, at the age of 18
years took 1,500 lambs to Totara
country for Suisted



Mathew Holmes (1817-1901)

Totara Estate

holding by the Provincial Government. To make sure that the Association did not lose the land the best areas were selected and bought one by one. Henry Campbell contributed some capital and he became a co-owner of Totara.

Many important developments took place at Totara while Holmes and Campbell were in charge. The tussock grassland was broken up so that cereals and permanent English grass pasture could be sown. Many fine crops of wheat and oats were produced on Totara proving the great fertility of the estate's soil. A flour mill was built in 1865 to grind the grain and other buildings essential to the efficient management of the estate were also constructed.

Mathew Holmes is believed to have imported the first Ayrshire bulls to North Otago in 1859. In the same year he brought in some Border Leicesters, receiving subsequent shipments from the best Scottish flocks each year until 1862. These sheep and some imported Lincolns formed the basis of the half-bred flocks which flourished on the Totara Estate in later years. By 1861 it was carrying 12,400 sheep.

Many horses were kept at Totara as their strength was needed for hauling the wagons and doing the heavy work involved in cultivating the land. They also provided a valuable break from the routine of station life when Henry Campbell initiated the Totara races. Held each year on Christmas Day they proved so popular that they became something of an institution in North Otago. In each event

rivalry was keen . . . Every man and every horse was a trier! There was no holding back! It was a case of 'going eyes out from start to finish and may the best horse win'. The prizes were small, but the honour was great.²

The First New Zealand And Australian Land Company

Large land and investment companies, for the most part British based, played an important role in nineteenth century New Zealand. Some were purely speculative enterprises which bought land and were then content to sit back and wait

The Early Years

for prices to increase until large profits could be made by selling. At the other end of the scale were those who invested the capital of their shareholders in developing and improving the land in New Zealand to the benefit of all parties thus paving the way for intensive farming and closer settlement. The biggest and most successful of these concerns was the New Zealand and Australian Land Company.

The Land Company was established in 1866 by the Glasgow financier James Morton. It was an amalgamation of syndicates, similar to and including the Holmes Association, which held properties in Australia and New Zealand. Together they provided the newly-formed Land Company with 27 estates in Otago and Southland as well as some suburban land and almost two million acres of primarily leased land in Australia. Since the Company and its general manager, James Morton, were based in Scotland its affairs in New Zealand were overseen by their colonial agent John Douglas and the newly appointed superintendent Thomas Brydone.

Brydone was born in Scotland in 1837 and spent the early years of his working life as a steward to various wealthy landowners in Britain. He also held the position of travelling inspector for the West of England Land Company 'where he moved in close contact with the latest schemes of land development, and with early experiments at scientific farming'.³ When Thomas Brydone arrived in New Zealand in 1868 he applied his comprehensive knowledge of farming matters to improving the Company's estates. Over the years he proved himself to be a very able man almost indispensable to the Company. It is possible that he was based at Totara in the late sixties but he later lived at the Dunedin Club, an exclusive establishment for wealthy and influential gentlemen. The Club still exists today in Melville Street, Dunedin.

Totara was purchased by the Land Company from Holmes and Campbell on 31 December 1866 for £98,326.5s.1d. There were 17,654 sheep, 200 cattle, 43 horses and 43 pigs carried on

Totara Estate

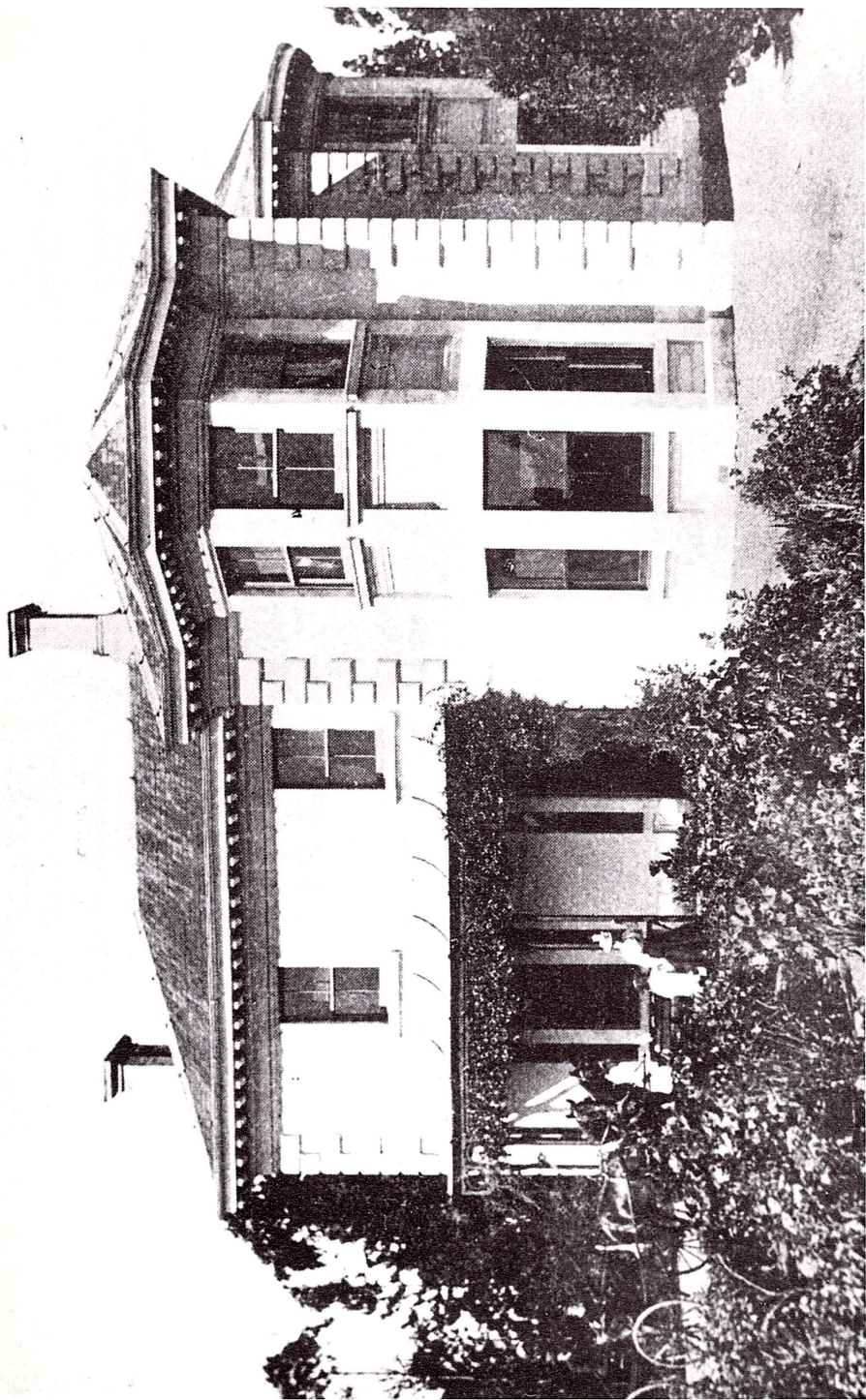
the 14,230 acres of freehold land and 397 acres held on lease. The estate was said to be the best wheat, potato and mangold-growing land in the Colony and capable of producing up to 60 bushels of wheat per acre.

One of the major improvements made during the period of the first Land Company was the construction of Totara House. Tenders were called in October 1867 but the substantial two-storey stone residence was not completed for almost another year. The projected cost was £1,300 but this was found to be inadequate and Robert Macaulay, the manager of the estate, had to pay the difference of £700 out of his own pocket. Totara House was the most substantial of all the homesteads on the Land Company properties and it still stands as the home of Mr and Mrs G. L. Berry. It is situated on a rise not far from the main highway but is not visible from the road because of the well established trees surrounding the house.

It is reasonable to assume that the farm buildings restored by the New Zealand Historic Places Trust were constructed about the same time as Totara House. Originally the main station buildings were situated near the Waiareka Creek. The great flood of 1868 may have been a factor in the decision to have new buildings erected near Totara House.

On the evening of 3 February 1868 heavy rain caused a natural dam, which had been formed by the refuse of threshing operations further upstream, to burst and a wall of water surged down sweeping aside everything in its path. The scene at Totara next day was described as one of 'damage and desolation'. Nine people were drowned and the garden and nurseries on the estate were destroyed. Robert Macaulay's report to John Douglas was published in the *Otago Witness* on 15 February 1868.

It is my painful duty to report to you a fearful catastrophe that visited us on Monday night, about 11 o'clock. The Waiareka stream, which passes our house rose all of a sudden about two feet into our house; and on looking out, the carpenter's house, the blacksmith's house, and the smithy had



Totara House. Built of Oamaru limestone it had a slate roof and contained 12 rooms as well as wash house, kitchen and servants accommodation. There was an orchard near the house and in later years a lawn tennis court.

Totara Estate

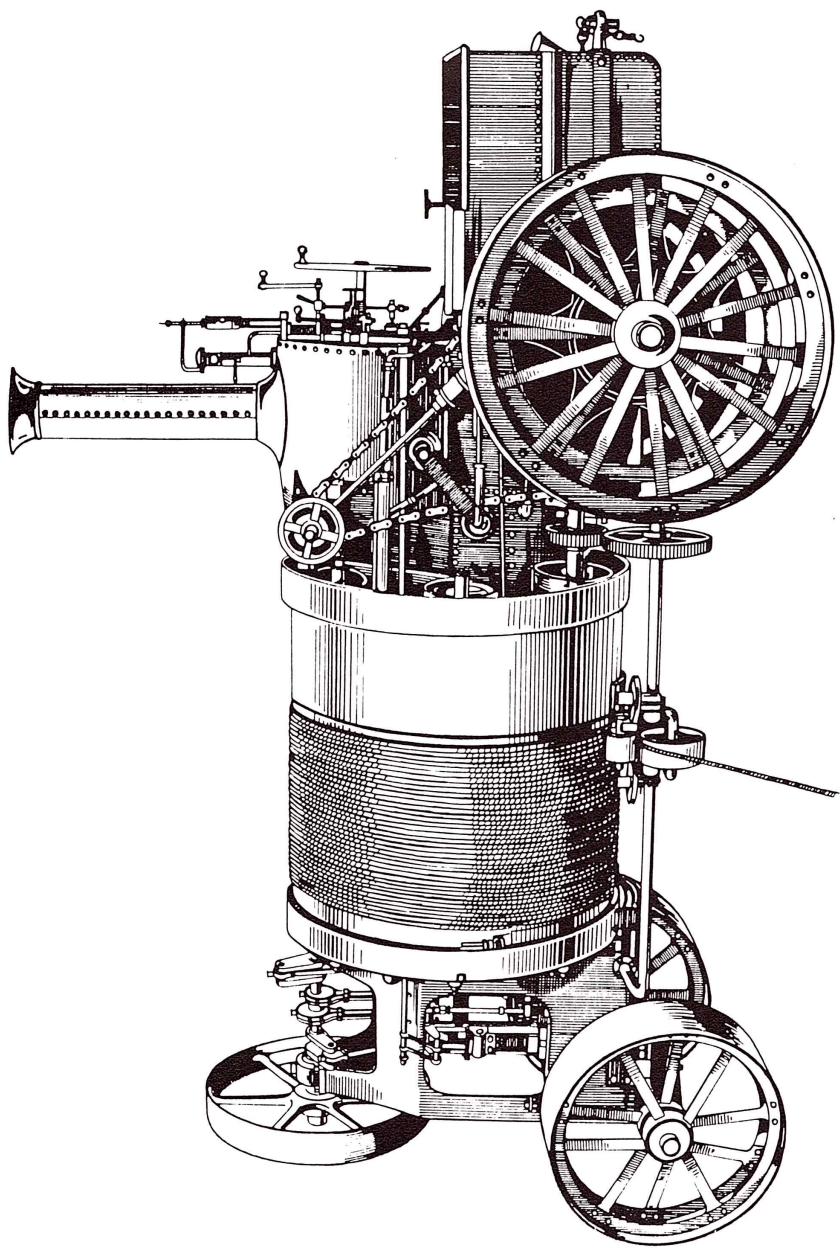
disappeared. In the carpenter's house were Robert Louden, carpenter; Mrs Louden, James Louden (son), and a little orphan girl. In the blacksmith's house were James Glass, blacksmith; Thos. Richardson, labourer; James Waddell, ploughman; Robert Young, labourer; Peter Dunn, ploughman; all of whom were drowned. Six of the ploughmen encamped in the Waiareka paddock were awoke by a little dog yelping, and found themselves in water. After escaping from the house they joined hands, and by great exertion got on to high ground. The mill has suffered little damage. The two fellmongeries, Messrs Lees and Crowther's, and another on the Kakanui, were completely swept away. The loss of stock is not yet known. Dead sheep are strewn along the sea beach and sides of the creeks. All the bodies of those drowned have been found except those of Peter Dunn and the little girl.

At the subsequent inquest into the drownings Macaulay stated that he had got Adam Baillie, a saddler on the station, to see if the Loudens were awake, but the night was very cloudy and with the heavy winds and rain it was impossible for Baillie to see anything. James Spence, a stone mason, was sleeping in a tent about 700 yards from the creek and was woken by water rushing over his feet. He stated that the water had risen two to three feet in no more than one minute.

The people at the mill were more fortunate. Although the water from the Kakanui River rose four feet on the second storey the miller and his family were able to escape drowning by walking along the top of a fence using poles for support. Not long after everyone was safe, the fence collapsed.

One of the survivors of the flood, Mr Lear, organised a collection of monies to be spent on a monument for the victims. Two large headstones were erected, one for the Loudens and one for the other employees. They still stand in the Oamaru Cemetery.

In 1868 the first steam ploughs were brought to North Otago because John Douglas had decided to make a trial of this novel invention on Totara. A 'Savory's Patent Locomotive Winding Machine' was placed at each end of the field to be tilled and the plough was then 'dragged along the intervening space by means of a wire-rope wound up by a



Savory's Patent Locomotive Winding Machine

Totara Estate

drum which revolves around the horizontal part of the boiler'.⁴ The machine was reported to be capable of turning up 200 yards of soil per minute.

In 1870 John Douglas retired from his position as 'Colonial agent' for the Land Company in order to farm his own property at Mount Royal near Palmerston. His duties were taken over by the firm of Russell, Ritchie and Company as John Macfarlane Ritchie, one of the partners, had been the Land Company's attorney since 1868.

It had been almost ten years since the Company had appointed Thomas Brydone as its New Zealand Superintendent and in these years the Totara Estate had prospered, nearly doubling its value. In 1867 the land, stock and plant were worth £123,085 but by 1877 this figure had increased to over £218,000. The 14,464 acres of freehold and the 397 acres of leasehold carried 19,529 sheep, 1,267 cattle, 123 horses and 44 pigs. At 31 March 1877 1,114 acres of the freehold land were under cultivation and 12,050 acres were in English grass pasture.

The Amalgamation

In 1877 a merger took place between the New Zealand and Australian Land Company and the Canterbury and Otago Association. Both companies originated in Scotland to buy land for agricultural and pastoral purposes. They also had several directors in common and shared the same General Manager, James Morton.

As a result of the amalgamation five first class properties were added to the new Land Company's books—Deep Dell in Otago, The Levels, Acton, Pareora and Hakataramea in Canterbury. The Company also gained the services of an extremely capable and intelligent young man in William Soltau Davidson.

William Soltau Davidson, son of prominent Scottish banker, David Davidson, was born on 15 June 1846. The age of 19 years saw him in the office of an Edinburgh merchant

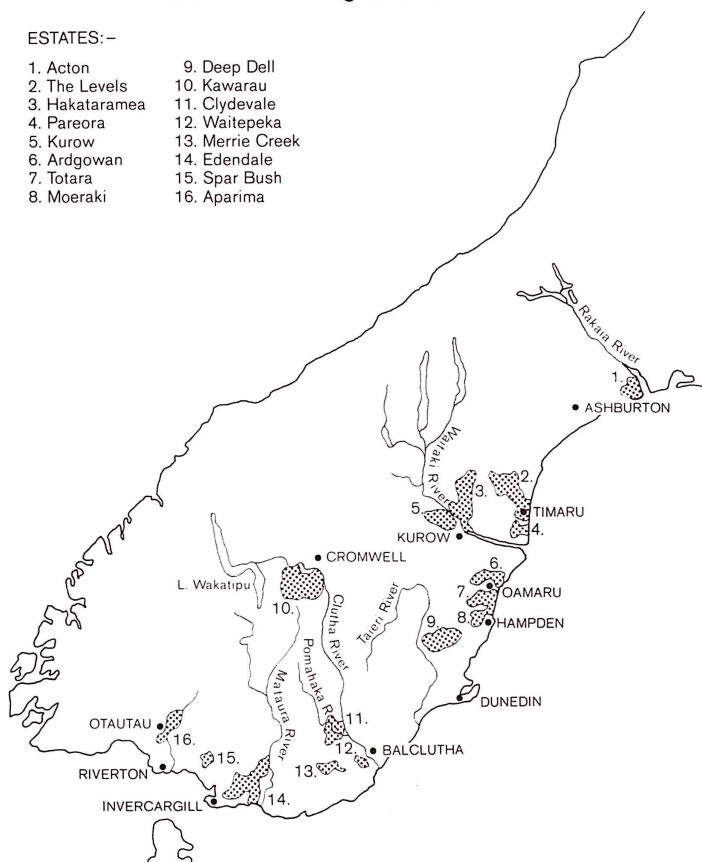


William Soltau Davidson (1846-1924). Davidson was only 32 when he was appointed general manager of the enlarged New Zealand and Australian Land Company

Map of the New Zealand and Australian Land Company's properties at the time of the Amalgamation in 1877

ESTATES: -

- | | |
|----------------|------------------|
| 1. Acton | 9. Deep Dell |
| 2. The Levels | 10. Kawarau |
| 3. Hakataramea | 11. Clydevale |
| 4. Pareora | 12. Waitepeka |
| 5. Kurow | 13. Merrie Creek |
| 6. Ardgowan | 14. Edendale |
| 7. Totara | 15. Spar Bush |
| 8. Moeraki | 16. Aparima |



Totara Estate

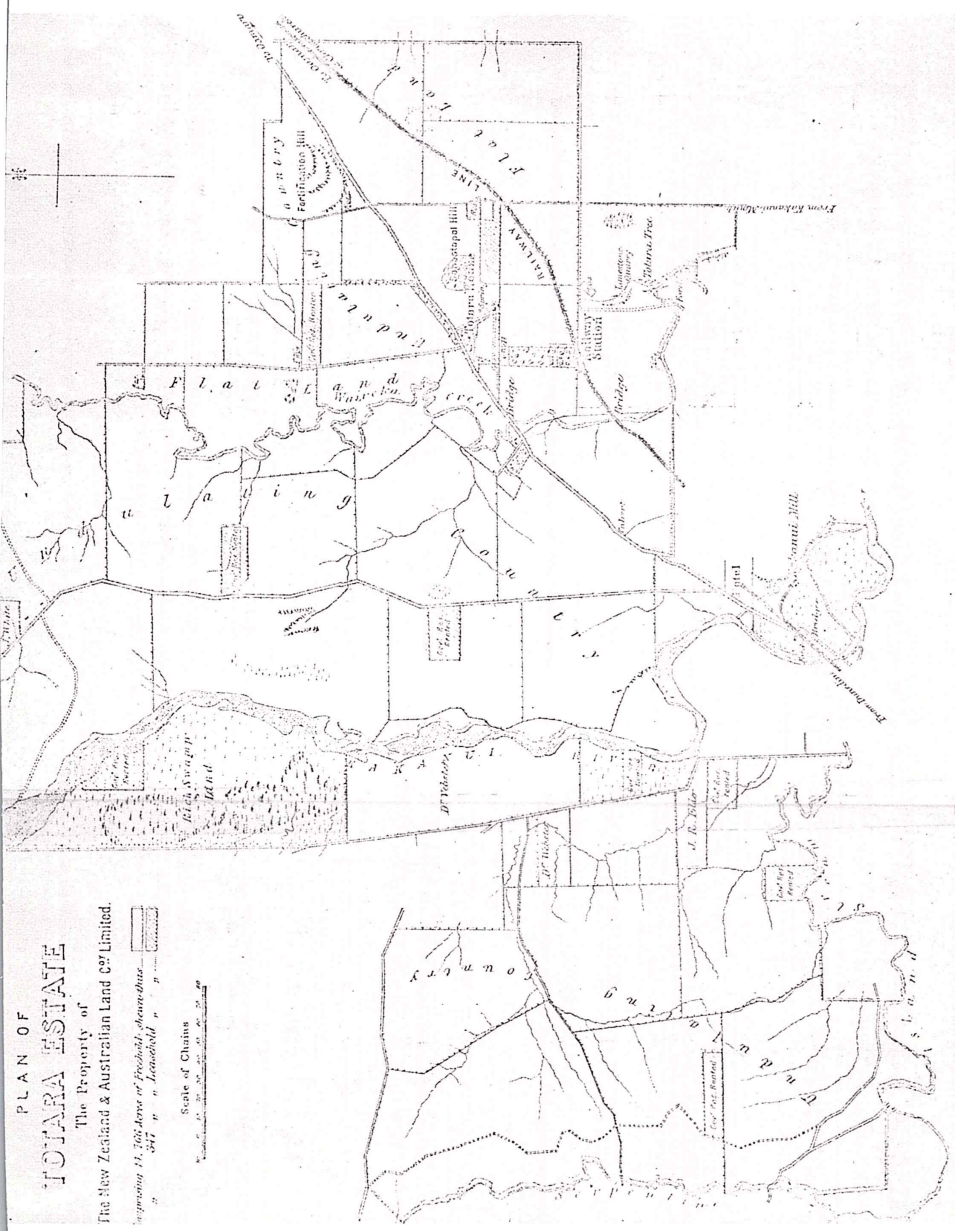
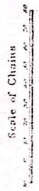
learning the ways of commerce. As he found the stuffy atmosphere uncongenial and felt that an outdoor life would be much more suitable to his tastes it was decided that he should go to Argentina. These plans were changed as a result of a chance meeting between his father and James Morton. Morton has been described as 'one of the fastest and most convincing talkers in the world of Scottish business'⁵ and he persuaded Davidson senior that New Zealand was a much better prospect for a young man than politically unstable Argentina. Davidson junior promptly gave up his Spanish lessons and prepared to leave for New Zealand where Morton had just established his Canterbury and Otago Association.

On his arrival in New Zealand Davidson proceeded to The Levels estate near Timaru. In 1865 it consisted of 153,061 acres, mostly leasehold, and carried over 85,000 merino sheep. Only 26 miles were fenced in 1865 and there were no roads. After two years as a shepherd on the estate he was promoted to oversee at the Cave outstation where he gained valuable experience in both pastoral activities and in handling men. As an example, the shepherds who worked on the outstation made what Davidson considered to be unreasonable demands in the way of their breakfast fare. They wanted hot chops but Davidson was only prepared to give them cold shoulder. As a result the Highland shepherds were dismissed, and as Hewland notes, 'Davidson would no more concede the point than would the twelve cold-shouldered shepherds'.⁶

In 1869 the Canterbury and Otago Association's lands were increased by the absorption of the Hakataramea and Deep Dell properties owned by the New Zealand and Otago Agricultural and Land Investment Association. The ubiquitous James Morton played a major role in this latter Association. Promotions followed the takeover and the able manager of Acton, Donald McLean was moved to The Levels to take up the new post of Inspector of the properties, with W. S. Davidson as his assistant. The nature of the work meant that Davidson had to undertake some surveying and

PLAN OF
TOTARA ESTATE
The Property of
The New Zealand & Australian Land Co. Limited.

22
 244 " " Household " "



Map of Totara Estate, probably at its fullest extent and before the 1879 sale

Totara Estate

his abilities would certainly have been noticed by the Board of Directors in Glasgow. When McLean resigned as Inspector in 1875 Davidson was appointed in his place. While at The Levels Davidson was personally involved in following up James Little's experiments in sheep breeding. Merino ewes were mated with stud Lincoln rams and the progeny was then inbred to develop what was termed an 'inbred halfbred' flock of high quality sheep.

Thus, in recognition of his considerable talents, Davidson was appointed General Manager of the enlarged Company in 1878. One man who may have felt more than a little dubious about this was J. M. Ritchie. In 1875 he wrote that he 'could work quite well with Davidson *under control* though he's far too conceited and self opinionated'.⁷ Ritchie's opinion is explained by the difference in the temperaments of the two men. Ritchie was apparently a quiet, nervous man whereas Davidson was an exuberant, self-assured person who could talk about anything, especially the Land Company's affairs, at great length. As Ritchie got to know Davidson better his opinion became more favourable.

Before Davidson left New Zealand to take up his appointment in Glasgow he made an up-to-date assessment of the Land Company's properties. These consisted of the Aparima and Edendale estates in Southland, Waitepeka, Merrie Creek and Clydevale in South Otago, Kawarau in Central Otago, and, in the north, Moeraki, Totara, Ardgowan and Kurow. To these were added Deep Dell, Acton, Pareora, Hakataramea, and The Levels from the Canterbury and Otago Association. In Australia were Bundure, Till Till, Wellshot, Yawong Springs, Chinchilla, Cardbeign, Greendale and Humula. The last five Davidson considered unsuitable for the Company to work and these were disposed of at his recommendation. He summarised the Land Company's assets in the following table:⁸

The Early Years

	Sheep	Cattle
Two first-rate estates in Australia—Bundure and Till Till—carrying in 1878 (Wellshot had been sold)	140,920	361
Five good estates in New Zealand— Clydevale, Kawarau, Kourou, Moeraki and Totara carrying in 1878	137,267	3,370
Total stock on the estates suitable for the amalgamated company to work	278,187	3,731
The Canterbury Company brought into the new Land Company the five first-rate estates— Acton, The Levels, Pareora, Hakataramea and Deep Dell, which carried	298,334	466
Total stock carried in 1878 on estates more or less suitable for the amalgamated company to work	576,521	4,197

Davidson's report on the inspection was presented to the Directors in 1878 and he had this to say about Totara:

TOTARA is so well known all over the colony as being the gem of the Company's possessions that I need say little about it.

It contains 14,464 acres, and I do not know of an estate in New Zealand of equal size worth so much per acre. It not only gains its value from local position, but the unsurpassed quality of its soil gives it an intrinsic worth which is scarcely ever met with over so large an area. The land runs to within three miles of the seaport of Oamaru, and the Totara Railway station, which is only sixty chains east of the homestead, is five miles from that town.

Totara is divided into two distinct natural blocks by the Kakanui River, the northern one next Oamaru being entirely of limestone formation, and showing the richest black tarry soil, whilst the one to the south of the river, commonly called 'the Island', contains no limestone, and is not so rich in loam, but nevertheless is splendidly adapted for farming purposes.

The most valuable portion of Totara surrounds the homestead, and lies nearest to Oamaru, and I think 5000 or 6000 acres could be selected there, that would be hard to beat anywhere in the southern hemisphere. All over the estate there is hardly any waste in cultivation, as any broken land that exists is generally very abrupt and measures little.

Totara is more celebrated for grain growing than for grazing qualities, and the loose friable limestone soil on the northern portion is apt to be penetrated by the hot sun in summer, and unless showers come to freshen

Totara Estate

it, the grass gets very dry and burnt up, but while the weather is moist it imparts most luxuriant feed, and the grass is always very nourishing.

It grows the best mangolds I ever saw; but turnips are a very precarious crop, as they are liable to be eaten off by insects, which thrive well in the warm soil.

There are some valuable limestone quarries, notably one near the Totara Railway station.

This estate has the best and most substantial homestead appointments of any of the Company's properties, and the dwelling-house is an excellent stone edifice suitable for a country gentleman's seat.

Beyond artificial plantations, there is no timber on the property, but some of these are beginning to show up well, and will eventually supply a great want, both as regards utility and beauty.

In accordance with instructions, preparations are now being made to cut up and sell Totara; and if nothing unforeseen occurs to prevent it, about 5000 acres or thereabouts will be offered in March next, and unless some commercial uneasiness exists, I have no doubt it will sell well, and fetch better rates than any other property in the market. The sections will begin with small suburban lots nearest to town, and be gradually increased in size up to 150 or 200 acres, as they get further back, and become purely farming blocks.

There will also be a small township laid off at the Totara Railway station, as it is astonishing how such places sell, and it will also encourage the settlement of labour, which will prove useful in the district. The homestead, and the land immediately adjoining, should not be offered for sale till such time as the Company are about to relinquish the working of the station.

The 'Island' division is all well tapped by roads leading to the Maheno Railway station close at hand.

On this estate there are a number of Government reserves rented by the Company, the leases of which have still about ten years to run. In all, they include about 300 acres of admirable land, leased at the low rate of 3s. 3d. per acre, and if the leases are sold along with the adjacent sections, they should fetch extreme prices.

With the exception of 1,207 acres of tussock, Totara is all either under English grass or cultivated and this year 1,300 acres of wheat and 600 of oats, sown out with grass, will be harvested at the Company's risk; there will also be 300 acres of green and root crop for winter feed. The tussock land consists mostly of river-bed feed along the banks of the Kakanui stream, and is well suited for cattle; it also includes a large swamp of the best quality, which is now being made available by draining.

The carrying capacity of this property is just now about 20,000 sheep and 700 head of cattle, but, . . . the latter stock will be made to give place to the former. As a whole, I consider the estate capable of yielding 20s per acre per annum, even if worked by the Company themselves.

The Early Years

There is a mill belonging to the Company close to the Kakanui River, driven by the water of that stream, which is now leased at £500 per annum. . . .

I consider the valuation of Totara a very difficult one to arrive at, as it is certainly what may be called a 'fancy place', and if the public are at all in the mood for speculation, they will bid 'fancy prices' for it. Judging by the sales of other properties in the neighbourhood, I think the late estimate made by the valuers should be realised without difficulty, unless the perturbed state of the money market damps the spirit of speculation for a time.

In April 1879 7,500 acres were offered for sale by auction but only 2,764 were sold at an average price of £22.16s.3d. per acre. In his 1882 report Davidson noted that this represented 'the highest average price ever attained in New Zealand over so large an area, and had it not been for the severe monetary depression existing at the time, the amount would most probably have been greater'. This depression, caused by a dramatic drop in export prices for wool, was to last until 1896.

Robert Macaulay purchased four blocks of the very best land at the sale totalling over 790 acres. After 13 years he had decided to retire as manager of Totara, but still wanted to farm the land. In Ritchie's opinion Macaulay had been less than competent in his work, as he wrote to his partner in 1875, 'Macaulay at Totara is blundering away in details of management. . .'. However he farmed his own smaller property, which he called Totara Park, until his death in 1895.

Totara House and some of the land adjoining the homestead was also put up for sale in 1879. The homestead block was advertised as being most suitable for a 'gentleman's country residence' but there must have been very few persons of that description who expressed interest in the property because Totara's new manager took up residence there in late 1879.

John Macpherson was born in Perthshire, Scotland in 1850 and at the age of 26 he, along with his younger brother Alexander, emigrated to New Zealand to work on the land.



John Macpherson (1850-1936).
Manager of Totara Estate 1879-1907



Thomas Brydone (1837-1904)
Superintendent of the Land Com-
pany's New Zealand estates

The Early Years

They brought with them letters of introduction to the local manager of the Canterbury and Otago Association and subsequently Alex became a teamster at Pareora and John was taken on as a clerk at The Levels. For 'new chums', as the latest arrivals in the Colony were called, the Macpherson brothers did very well for themselves. Alex worked his way up to the position of manager of Pareora and John, after only three years in New Zealand, was appointed manager of the Totara and Ardgowan estates of the enlarged New Zealand and Australian Land Company. His previous experience as a book-keeper, surveyor and later manager of the Cambrian Slate Quarries in Wales stood him in good stead as he undertook a great amount of the surveying work for the Canterbury and Otago Association, and he also measured all the agricultural work on Totara. Davidson found John to be a 'steady and trustworthy young man'.¹⁰

Macpherson, as Manager of the Totara Estate, worked closely with Thomas Brydone who was Superintendent of all the Land Company's holdings. In a letter to his former employer in Wales Macpherson described Thomas Brydone as a 'splendid fellow and very clever' adding that he felt honoured to have 'a man of his standing as a friend'.

The younger members of the Macpherson family also have their memories of Brydone. Stewart, one of John Macpherson's sons, recalled the uneasiness which would fall on Totara House with the news of an impending visit by the Superintendent

If a telegram arrived announcing a visit by Thomas Brydone father always got into a state of agitation—the rouse-about would be turned on to picking some wisps of wool from the wire fences above the homestead and collecting any wet chaff bags hung over fences to dry. Unless this was done before the arrival of Thomas Brydone father would stop a proper blast.

Whenever Brydone came to inspect Totara he stayed at the house in a room specially kept for him. Stewart as a young boy made some detailed observations.

Totara Estate

He was a big man in all respects and the wives of the various property managers were always terrified of him finding fault with the running of various households.

My mother was once told by him never to have jam on the breakfast table; always marmalade.

When he stayed at Totara we were young children and were warned before attending meals not to speak during the meal. We were fascinated by the way he took porridge at breakfast.

A large tumbler of milk was placed beside his plate. He sprinkled salt liberally on the porridge and then with a bone spoon specially kept for him took a spoonful and dipped it into the milk before eating.

He was very friendly with the Menlove family at Windsor Park and if at Totara over the week-end would always visit them.

The buggy and pair would be brought up in front of the house by the groom. 'T.B.' (as Brydone was always referred to) always drove the horses, father usually sitting beside him. He was a poor driver and would invariably catch the hub of the front wheel on the gateway leading into the main road. He would remain seated while father and often Pattello, who was sub-supervisor, got out and skidded the wheels free from the post. We children would hide amongst the shrubs in the grounds to watch this performance.

Brydone lived at the Dunedin Club and I think was a member of the Committee for years. Totara was a great potatoe growing area in those days and regularly supplied the Club with the best shaped tubers which were roasted in their skins or jackets.

As boys, we were often put on to picking over a ton of potatoes from the field to select a few sacks of what father thought suitable for the 'Gentlemen's' Club. We did not think much of the name Fernhill Club as it was generally called. . . .¹¹

John had been manager of the estate for only three years when, in 1882, there occurred an important event in New Zealand's history and one in which Totara was intimately involved. Preparations for New Zealand's first shipment of frozen meat had begun in 1880 and Totara was eventually selected as the place where the stock would be killed and dressed for export.

A Bold Venture

The Situation in the 1870's

In the 1870's New Zealand's major export, apart from gold, was wool, and large numbers of sheep were carried on the pastoral runs so that wool production would be kept at as high a level as possible. At this time New Zealand's human population could not possibly consume all the sheepmeat available. In short the carcasses of these thousands of sheep were a waste product. One means of disposing of the surplus sheep was described by W. S. Davidson

I had seen the flocks in New Zealand increase from the want of an outlet until the old sheep were unsaleable, and I had vivid recollections of having to erect yards at the edges of cliffs, into which some thousands of these old sheep were driven, so that they might be knocked on the head and thrown over the precipice as a waste product.¹²

Similar problems were being experienced by sheep farmers in Australia and Argentina.

Another way of dealing with the surplus sheep was to send them to the boiling down works. There the sheep were killed and skinned and the carcasses placed in large vats to be 'stewed' for several hours. The fat was run off, drained into casks and cooled to be sold as tallow. The gravy was fed to pigs and the residues of bones and other tissues removed from the digesters and converted into manure.

A small export trade had been established in canned meats by the 1870s. The New Zealand Meat Preserving Company set up several plants in both islands in 1869 but was not particularly successful, the business eventually closing down because of the unreliable quality of its products. Some other

Totara Estate

firms were more successful, for example Thomson and Finlayson at Kakanui. At their works the carcasses were boned and the fat removed for boiling down in the digesters. The good meat was sent down a chute to the kitchen where it was weighed and pressed raw into tins. These were then

shunted along to the fitters, who fit the covers on and pass them to the solderers. Thence to the bathroom or preserving room. Here there are six baths filled with water kept boiling by steam pipes. Into these the tins are placed for three hours. Then, having been taken out, a hole is made in one of the ends, and the air allowed to escape. The tins are again soldered up and boiled for another two and a half hours in the boiling water; they are taken outside to a platform to cool.

Finally the tins were labelled and packed. Thomson and Finlayson's works were capable of processing 500 sheep per day and as many as 1,400 tins could be cooling on the platform at one time.¹³ But even with such numbers the boiling down and canning works only offered a short term relief to the overstocking problem.

At the same time as New Zealand, Australia and Argentina were trying to cope with this problem of oversupply, England was crying out for more food. Clearly it was important that the vast overseas meat resources should be made available to the British market.

For centuries it had been known that most foods, if kept cold enough, would stay fresh for long periods. In the mid-1800's engineers and inventors were having some success in developing efficient methods of producing cold air mechanically. James Harrison of Australia patented a process using ether compressed in a vacuum. Others investigated the principle of compression and expansion of air to freeze food. The next step was to fit the refrigerating machines into ships to see if frozen meat could be transported from one country to another. The first such shipments were in the form of chilled beef sent from North America to Great Britain. Then in the late 1870's two steamers, *Le Frigorifique* and *Paraguay* made the long voyage from Argentina to France

A Bold Venture

proving that frozen meat could be taken from the southern to the northern hemisphere and arrive in good condition. Another steamer, this time from Australia, successfully carried a cargo of 33 tons of mutton and beef to London in 1880. It was this voyage by the *Strathleven* that inspired William Soltau Davidson to investigate the possibility of sending a trial shipment from New Zealand.

Davidson's Preliminary Preparations

The decision to follow up the successful experiments by Australian and Argentinian shippers was no mere whim on Davidson's part. The Company, as much as any other flock-owner in New Zealand was having to cope with disposing of unwanted sheep and falling wool prices. Davidson would have recognised that refrigeration offered a way out of a very difficult situation. He also realised that a great deal of preparation was required to ensure the success of the trial shipment from New Zealand and this is why more than two years elapsed between his preliminary investigations and the arrival of the refrigerated cargo in London.

In February 1880, not long after the *Strathleven* berthed in London, Davidson began. He was supported by his Board of Directors who allowed him to spend £1,000 in finding out what had to be done. An appointment was made with the Bell-Coleman Company, which had supplied the technical knowledge for the shippers of beef from North America, and Davidson arranged for one of the Company's directors, John Hunter and James Galbraith, a director of the Albion Shipping Company, to go with him to the meeting. He also informed the Company's representatives in New Zealand that the possibility of making a trial shipment of frozen meat from one of the properties was being considered.

Davidson recognised that a shipment from New Zealand would pose more difficulties than the Australians had had to encounter. In this country there were no on-shore freezing works nor a direct steamer service to Britain. Davidson summarised the position:

Totara Estate

The problem we had to solve was as to how we were to import from the most distant part of the world frozen carcasses of sheep, without steamships to shorten the long voyage and supply steam for the refrigerating engines; and without refrigerating works on shore to freeze the sheep before shipment; and with the knowledge that if the carcasses were all hung up separately, as in the case of the quarters of chilled beef brought in the steamships from America, the space required and the consequent high freight per carcass would at the outset kill the whole business.¹⁴

The idea of constructing a small chamber to freeze the sheep on shore had been considered but Davidson recognised that it would be both expensive and risky. It was estimated that the chamber would cost £5,000 which would be wasted if the venture failed and if, on the other hand, the shipment was successful a much larger works would be needed and the machinery would have become obsolete. The assurances of the Bell-Coleman Company that the meat could be frozen on board a sailing vessel, and that the carcasses could be packed on top of each other and be kept solid during the whole voyage without any risk of crushing must have been welcome news to Davidson. The task of choosing which refrigerating machine to use was not taken lightly. After almost one year of investigations it was eventually decided that the Bell-Coleman apparatus was superior to the Haslam, Pictets and Giffard machines.

In February 1881 a letter was dispatched to New Zealand informing Thomas Brydone that the Australian steamer *Protos* had landed 2,700 frozen sheep in first rate order and that arrangements had been made with the Albion Shipping Company to supply and fit a ship. At that stage Timaru was proposed as the port of loading. On 10 March Davidson wrote again to New Zealand suggesting that while Brydone was on holiday in Australia he could take a look at the loading of the *Protos's* second cargo.

By 20 April 1881 matters had advanced to the stage where Davidson could instruct Brydone 'to erect a killing shed in which to slaughter the sheep; to secure first-rate butchers; and in every way to prepare for the providing of a cargo of the most attractive classes of sheep'.¹⁵

A Bold Venture

The Albion Company agreed to fit up one of their sailing ships with a Bell-Coleman cold-air machine. The *Dunedin*, one of the famous Auckland class originally built for P. Henderson and Company to carry emigrants, cabin passengers and cargo, was selected. She was one of the largest members of the class being 1,320 gross tons weight and 241 feet long and was constructed by Robert Duncan and Company of Port Glasgow. The *Dunedin* had been commanded by Captain John Whitson since her maiden voyage in 1874. Mr Coleman personally supervised the installation of his company's machine which took from May till August 1881 and resulted in some noticable alterations to the ship's appearance. With a large funnel between the main and foremast the vessel was described as having a 'rather nondescript appearance, partaking somewhat of the character of a steamer, with all the characteristics of a first class sailing ship'.¹⁶ Only the fore hold and the 'tween deck abaft the fore hatch were insulated and the refrigerator was situated between a bulkhead just forward of the main hatch and the insulated space in the 'tween deck. Before the *Dunedin* left Glasgow for New Zealand on 24 August 1881 the machinery and chambers were tested by Mr Coleman and 40° of frost was attained. She carried a considerable quantity of pig iron in the bottom of the meat chamber to give stability under sail.

The Land Company undertook to supply up to 7,500 sheep to fill the chambers and pay freight of 2¼d. per pound. Messrs William Euing and Company, insurance brokers of Glasgow, 'courageously agreed to accept what was a totally unknown risk by covering all contingencies attached to the carriage of the meat, at the moderate premium of five guineas per cent'.¹⁷

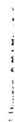
Totara Estate

Slaughtering at Totara

It was eventually decided that the stock for the first shipment of frozen meat from New Zealand would be prepared at Totara. In 1881 there were over 10,000 sheep carried on the 11,226 acre estate and they were all large crossbred Lincolns and Leicesters.

The slaughtering complex consisted of a wooden killing shed, a meat house made of wood and stone where the carcasses were to be cooled before being taken to Port Chalmers, and two covered pig yards with associated breeding pens. In his 1882 report to the Directors Davidson stated that the slaughterhouse 'did not cost much being chiefly built from old materials'. Unfortunately both the available photographs and the plan of the slaughterhouse complex were made after the first shipment was prepared at Totara. The plan should, however, give a fairly good general indication of what the slaughterhouse would have been like. Water supplies to the slaughterhouse were minimal as only two cold water taps were provided to bring water from a large tank nearby. As a whole the estate had a poor water supply relying on wells and windmills to pump the water to where it was needed. It is said that the smoothness of the slaughterhouse floor was due to the concrete having been mixed with blood.¹⁸ There was a grating on the floor which allowed the blood to drip away into the gutter leading to the trough in the pig yard. An Oamaru stone wall separated the pig runs and the killing shed and the trotters and other refuse were pushed through swinging wooden doors mounted in the wall to the yard outside. Later on contractors began to save the tongues, livers, fat, trotters and also parts of the stomachs for sausage skins. The fat was packed in sacks and sent to the Kakanui boiling down works.

The meat house was connected to the slaughterhouse by covered concrete steps. The building had one large and two small ventilators in the roof to encourage free circulation of air. One wall and the floor of the meat house were constructed of slatted boards to serve the same purpose. There



Plan of the Slaughtering Complex at Totara

Totara Estate

was a hole in the Oamaru stone wall which faced the pig yards and through this were passed the trimmings from the carcasses into a trough outside.

Before operations could begin John Macpherson had to apply for a slaughtering licence. Evidently the Land Company paid a lower fee than normally charged because the meat was to be exported.

Slaughtering began on 6 December and the work at Totara was described in detail by the *North Otago Times*:

Six butchers with attendant satellites are engaged in the sanguinary part of the business, and 240 carcasses are despatched to Dunedin every morning by the first train. The sheep destined for the morrow's slaughter are on the previous day drafted into a yard, where they have to remain fasting for 24 hours so as to be in the proper condition for killing. At four o'clock every morning work begins; when the number killed on the previous day, after hanging to cool for 24 hours, are packed in meat vans fitted for the purpose with hanging apparatus, ventilators, and an ice chest in the centre of each; and five vans, each containing 50 to 60 sheep, are taken on their destination by the morning train. . . . Immediately after being killed the carcasses are hung up in a meat house constructed for the purpose, with one wall and the floor constructed of narrow boards placed an inch or so apart, so as to admit of a free draught and current of fresh air. This shed is fitted up to hang 250 sheep, each carcass being allowed a space of fifteen inches square, which allows the cool air a free passage all around them. While hanging there the carcasses are all carefully cleaned, and all superfluous fat, etc., that may remain in them after passing through the butcher's hands carefully removed. The mutton is of an excellent quality—for the most part crossbred—and the carcasses average from 85 to 90 lbs. Several have been sent weighing over 140 lbs, and about thirty or forty will be shipped, as specimens of fat sheep, turning the scale at 200 lbs. The heads are sold for boiling purposes, while the tongues are salted down on the station, and sent to Dunedin. The large amount of refuse of all kinds which necessarily accompanies extensive slaughtering operations is quickly disposed of each day by about 200 pigs, whose habitation is conveniently adjacent to the slaughter-house. Besides the 5,000 sent by Mr M'Pherson from the company's estate a few hundreds will, we believe, be shipped by Mr J. Elder of Maheno, Mr Shand of the Taieri, and by Messrs Murray, Roberts and Co.

Alex Thomson trained the men how to dress a carcass for export and each butcher was expected to kill at least 50 sheep

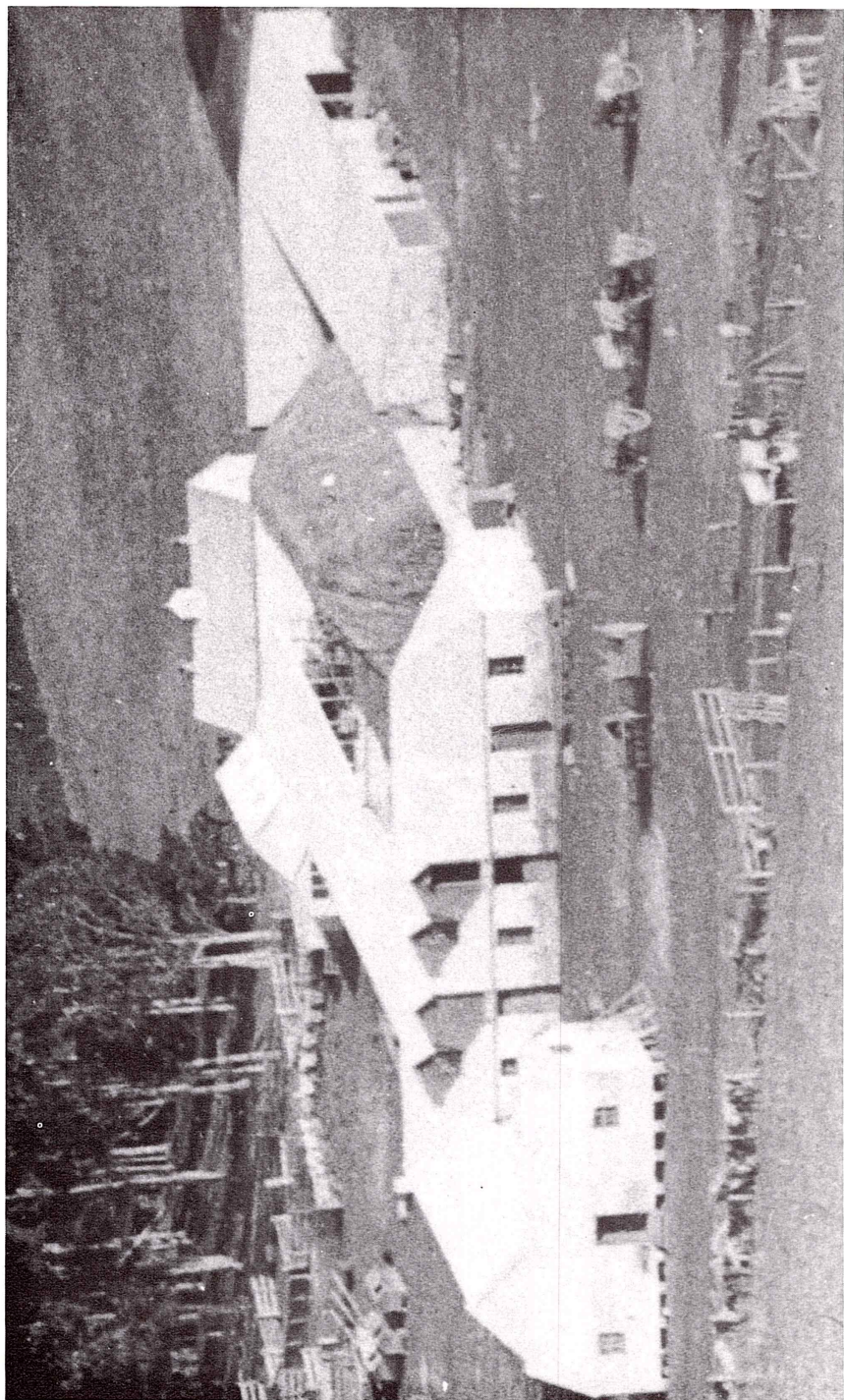


Photo of the Slaughterhouse Complex. Although taken some years after slaughtering for export had ceased at Totara the photo shows the covered pig yards, killing shed (with three skylights in the roof) and adjoining carcass storage shed or meat house (with the large and two small ventilators in its roof). To the right of the meat house is the implement and buggy shed. In the foreground is the chaff house and behind it the stables

Totara Estate

per day. At least two young boys were employed to help in the yard. George Drummond's job was to gather up the tongues, trim the ends, and pack them away. He noted that 'In our shed one man did the "sticking", four men did the "pulling out" and another took out the tongues'. A 13 year old boy named Calder was paid ten shillings a week to assist the operations but later he was promoted to the slaughterhouse to pull away the skins for the butchers. The skins were then laid out in a nearby paddock and later bundled up for the fellmongery at Kakanui. He recalled that William Pearce, Colin Miller (of Dunedin) and Sam Burns were three of the slaughtermen and Jock Burns trimmed and tied the carcasses.¹⁹

After the carcasses had cooled for 24 hours they were packed onto spring carts and driven to the railway siding three quarters of a mile away. The drivers took a short cut across the paddock behind the meat house to the road leading to the Totara siding. The marks made by the carts can be seen in the panorama of the farm buildings on page 73.²⁰

Brydone had notified the Traffic Superintendent at Dunedin Railway Station that 500 carcasses would be dispatched daily from Totara and 'about ten vans fitted with hooks to hang the sheep from' would be required. The Locomotive Superintendent at Addington was instructed to fit ten vans 'with the least possible delay'.²¹ The vans which eventually carried the sheep to Port Chalmers were modified 'K' class box wagons. The Railways had sought information from the United States and Australia as to the type of wagon best suited to transport the carcasses from Totara but the information was received too late to be of use for the first consignment.

In those days the train journey from Oamaru to Dunedin took five hours because the locomotives could not carry enough coal or water to make the trip without several refueling stops. The carcasses, having been loaded into the vans in

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the early hours of the morning, had to be taken to Port Chalmers by the first possible train to avoid the risk of heat damage from a hot summer day.

Davidson made a special trip to New Zealand to oversee the operations at Totara. If inferior carcasses were sent to Port Chalmers the whole venture would be doomed to failure before it had even started. Davidson recognised this and many carcasses were rejected. He made quite an impression on young Calder who recalled many years later that Davidson was 'meticulous about the quality of that first shipment' and that

his energy and zeal were plain for us all to see, and with it all he was a most friendly man, who always had praise for good work.²²

By the time those first carcasses had reached Port Chalmers Davidson and Brydone were on hand to stow them aboard the *Dunedin*.

Loading The DUNEDIN

The *Dunedin's* voyage out from Glasgow occupied 95 days anchor to anchor. She carried 51 passengers along with general cargo. The *Dunedin* and her commander, Captain Whitson, were not unfamiliar to the Port of Otago. The *Otago Daily Times*, upon announcing the ship's arrival on 28 November 1881 stated

It is hardly necessary for us to speak of the efficient state in which the *Dunedin* comes into port both inside and out; indeed, when she was being towed up the harbour yesterday evening we took her for a man-of-war auxiliary screw steamer, and on getting on board the whole of her appearance bore out our ideas.

Although the chief officer Mr Third, was 'a stranger' to the newspaper reporter the second officer was 'our old friend Mr Stephens', Mr McManus was third officer and the chief steward, Mr C. McKinnon was described as 'that best of good fellows'.

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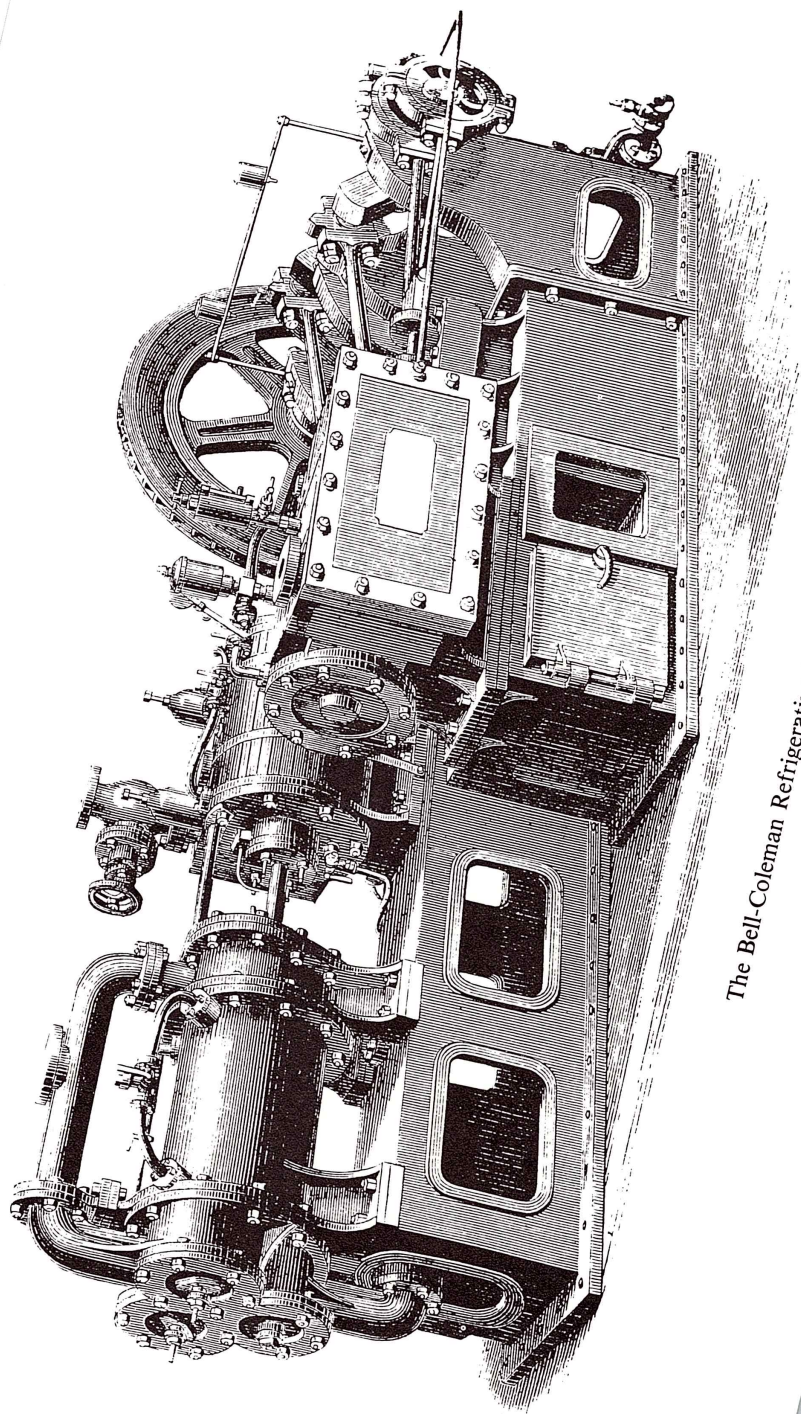
As soon as the major part of the *Dunedin's* inward cargo had been off-loaded the task of freezing and stowing the sheep was begun. When the railway vans arrived from Totara the carcasses were taken to the *Dunedin's* 'tween deck to cool gradually. Each carcass was sewn into a coarse calico bag and after 24 hours moved to the lower deck. There they were packed head and tail as closely as possible and then frozen, the process taking a further 24 hours. The first carcasses were stowed by Davidson and Brydone on 7 December. The question of how this was to be done was an important one. It is not known whether it was decided to stack the carcasses lying across the ship or if they were arranged 'fore and aft'. In any case 'the engineer was determined to give the experiment a fair start . . . and had reduced the temperature to considerably below zero in the hold, so that ere long,' Davidson stated, 'when the system of stowage was finally settled, we were glad to retire to a warmer spot!'²³

The Bell-Coleman machine removed the air from the room to be kept cold and compressed it, during which process it became warm. The air was then cooled by cold water circulating in pipes. On expansion to atmospheric pressure the air became very cold and was returned to the freezing chamber. To make sure that the sheepmeat was being properly frozen a few carcasses were removed from the chamber and, when cut, were found to have been satisfactorily chilled.

All was going well until, on 12 December, the crankshaft and some of the casings of refrigerating machine broke. By then 641 sheep had been frozen and stowed and a further 360 were on their way from Totara. These had to be sold locally and although the locals had the privilege of being the first to taste their own frozen produce the only comments published by the papers were that the disposal of the sheep caused a glut of meat on the market. Some carcasses were even dumped at sea. Messrs Kincaid and M'Queen were engaged to make a new crankshaft at their Vulcan foundry in George Street, Dunedin. It was courageous of them to do so since it was the



The *Dunedin* at Port Chalmers *inset* Captain John Whitson (1841-1886)



The Bell-Coleman Refrigerating Machine

A Bold Venture

first time such work had been undertaken in the region. The double-throw shaft had a diameter of 6½ inches and the throws a depth of 12 inches (this being equivalent to a throw of two feet). Scrap iron was used for the new shaft and the throws were being turned on a lathe kept in motion 24 hours a day for two weeks. On 10 January, almost one month after the breakdown, the replacement parts were ready.

Two hundred and forty sheep were placed in the chamber on 14 January and the engines were said to have been in use for over 48 hours with better results than before the breakdown had occurred. Two days later four wagon loads of meat arrived from Totara. No further trouble was experienced with the machinery although operations were slowed down as loading was nearing completion because progressively less space was available for freezing. When the lower deck had been filled the carcasses had then to be stowed in the 'tween decks chamber. At the same time as the freezing was being carried out the other items of ship's cargo, mainly wool, flour and wheat, were being loaded.

One factor essential to the profitability of any shipping concern is a quick turn around at ports of call. With the time needed to freeze the carcasses and the delay caused by the breakdown the *Dunedin* was losing money. It was fortunate however that the crankshaft broke while the ship was in port and could be repaired locally.

Loading the *Dunedin's* cargo was completed on 14 February. By then the weather had taken a turn for the worse and it was so cold that the refrigerator was turned off though the thermometers in the chambers registered very little change as a result. The ship was towed away from the Railway Pier by the steamer *Koputai* at 10 a.m. on 15 February 1882.

The Land Company consigned 3,437 carcasses of mutton, 497 of lamb as well as 22 pigs and 2,226 sheep tongues. James Elder of Maheno had his 140 sheep and 100 lambs slaughtered at Totara but the other shippers made their own

Totara Estate

arrangements for having their sheep killed. Altogether 4,909 sheep were exported along with a small quantity of hams, rabbits and turkeys. The fact that the first shipment of refrigerated dairy produce was also made by the *Dunedin* in 1882 is most significant. A total of two hundred and forty six kegs of butter were sent by three shippers—the Canterbury Farmers' Co-operative Association (6), The British and New Zealand Mercantile and Agency Company (40) and J. R. Scott (200).

On 15 February the Dunedin office of the Land Company wired Edinburgh to insure the whole shipment of 167 tons for the sum of £8,000. This included the meat sent by other shippers from whom a proportion of the premium was to be recovered and a claim was also made for the loss due to the breakdown. John Angus, one of the Land Company's clerks in Dunedin, had kept the tallies of the sheep as they were loaded and on 24 February the Bill of Lading was sent to Edinburgh.

Particulars of Meat sent in Refrigerating Chamber of the Ship "*Dunedin*"
Sailed for London 15 Feby '82

Shipper	Carcases			Sheep	lb	To be
	Mutton	Lamb	Pork	Tongues	weight	insured
Jas Elder	140	101			15267	£ 311
JH Smith	100				8160	150
Murray Roberts & Co	349				30455	523:10
Jas Shand	249				21750	373:10
NZ & A Land Co	3473	497	22	2226	297481	6642
	4311	598	22	2226	373113	£8000

The Epoch-making Voyage

When the *Dunedin* finally got away on 15 February 1882 her crew consisted of 37 men. The Chief Engineer was Alexander MacAllister, a 47 year old Scot who had experience in the

A Bold Venture

North American chilled beef trade, and Davidson found him to be 'very efficient and reliable'. He was paid £4 a week. Another Scotsman, 55 year old Archibald Granston was his assistant and his wage was £3 per week. Sam Hughes of Dublin was also described as an assistant engineer but it is more likely that he did the heavy physical work of a stoker and greaser for the monthly sum of £5.10s.²⁴

Only two passengers were brave enough to travel with the ship to England. About 60 others had booked passages on the *Dunedin* but they later cancelled for fear of the crankshaft breaking again and penetrating the hull.

One of those who decided to stay with the *Dunedin* was 17 year old J. H. Coggins. He said that 'the spirit of adventure prevailed over any misgivings that I may have had at the time, while the experimental side of the voyage interested me very much.' He was good friends with Captain Whitson who had 'the reputation of being one of the finest sailors of his day'. Coggins' account of the trip was published in P.S.E. Hereford's *The New Zealand Frozen Meat Trade*:

After a short delay the ship sailed with a cargo consisting of mutton, beef, lamb, pheasants, hares, rabbits, turkeys, geese, ducks, chickens, fish, butter, milk and eggs. During the voyage we were fed on this produce, and on the whole it was very good. We made the discovery that the mutton for some reason kept better than the beef. The game was excellent. I remember quite well how pleased the crew were to get fresh mutton. For hundreds of years the British sailor had been fed mainly on 'salted junk' and bully-beef, and fresh meat for dinner on Sundays was something of an historical event.

The voyage on the whole was a good one . . . When we were off the Isle of Wight, the directors of the Shaw, Savill & Albion Company came on board and we had a banquet of many of the good things we had brought from New Zealand.

For Coggins the voyage was a holiday and with good things to eat and agreeable weather he enjoyed himself. Captain Whitson, however, probably had the most trying voyage of his whole career. As well as having the state of the cargo to worry about, on several occasions the ship's very existence was in danger. Sparks from the engine funnel threatened to

Totara Estate

set the sails on fire and more than one steamship commander came out of his course to see if towage was required as they mistook the *Dunedin* for a broken down steamer. Davidson later supplied full details of the voyage as Captain Whitson had reported to him:

. . . in the tropics the ship was for a long time on one tack, and owing to its steadiness the cold air was not sufficiently diffused amongst the carcasses, and in fact the temperature in parts of the upper chamber remained so high that the engineer was in despair. At last Captain Whitson determined to alter the circulation of the air, which was evidently defective, and to do this he had to crawl down the main air trunk, and in the process of cutting and sawing fresh openings for the better escape of the cold air he became so benumbed by the frost that he was unable to move, and was only rescued from his perilous position by the mate crawling in behind him and attaching a rope to his legs, by which he was pulled out of the air trunk! . . . The captain report[ed] that the ship experienced fine enough weather, but unfavourable winds prolonged the passage to over 90 days. The vessel was in first-rate sailing trim throughout, notwithstanding the extra weight of the boilers on deck, and the gradual lightening of the cargo by the consumption of coal. One or two "crack" sailing ships left New Zealand about the same time as the *Dunedin*, but only reached England several days behind her, which proves that the refrigerating arrangements in no way impede the speed of the vessel. The weather encountered in the tropics was hotter than Captain Whitson had before experienced, but by working the engine steadily there was no difficulty whatever in keeping down the temperature. As the ship was becalmed about the line for a considerable time, it is satisfactory to know that the freezing capabilities were thoroughly tested. The engine burned rather over three tons of coal per day, sometimes being worked only two or three hours in the 24 when the weather was cool, and this maintained a temperature of several degrees below zero in the lower chamber during the whole voyage. In rough weather the Captain noticed that the temperature was very equal throughout the chambers because the cold air got tumbled about and mixed up with the warmer air, instead of settling quietly down to the lowest portions of the ship.

Davidson had arranged to be at home by the time the *Dunedin* arrived and he met the ship when she berthed in London. It must have been an anxious time for him as he had no news of the state of the cargo for three months. Captain Whitson inadvertently added to these anxieties when, on nearing the English coast, he omitted to send the pre-

A Bold Venture

arranged private signal saying that the cargo was safe. At last however the 'strained and careworn' captain came ahead of his ship to meet Davidson and informed him that he believed most of the meat was in sound condition. The *Dunedin* berthed at East India Dock on 24 May 1882 after a voyage of 98 days.²⁵

A Great Success

When the *Dunedin* berthed Davidson was on hand to satisfy himself as to the soundness of the cargo. At the first opportunity he crawled into the meat chamber between the carcasses and to his delight they seemed to be in excellent shape. In fact only one carcass was condemned.

Discharging the meat began three days after arrival in London, and the whole shipment was disposed of in two weeks. Just as the produce of the five shippers was insured as one cargo so the meat was sold as one lot. The carcasses were removed from the holds at night and taken immediately to Smithfield market so that when the butchers came to buy the meat next morning the sheep were still hard frozen. At the market seven salesmen handled the consignments and Davidson noted:

At first the salesmen were rather doubtful about the venture being a success, especially as it was the first trial from New Zealand; but when they saw the fine big sheep, which, although many of them had been frozen over four months, were clean and bright as newly killed mutton, they quickly changed their opinion, and pronounced the meat to be 'as perfect as frozen meat could be.'

I heard of one West End butcher who, although he scorned the idea of ever allowing frozen meat to enter his shop, was at last persuaded by one of the salesmen to try three, with the result that next day he bought six, and the next day nine; and I have little doubt he still further increased his purchases.²⁶

The *Dunedin* shipment also attracted attention of the London newspapers. A leader in *The Times* stated:

Today we have to record such a triumph over physical difficulties, as would have been incredible, and even unimaginable, a very few years ago . . . The present arrival is by a sailing ship, after a passage of 98 days across the



Smithfield Market 1901

A Bold Venture

tropics; indeed for a large part of the voyage, in heat in which Englishmen find almost intolerable.

The ship that has accomplished a feat which must long have a place in commerial, indeed political annals, is the *Dunedin*, belonging to the Albion Shipping Company . . . Under a torrid zone and a tepid sea, an arctic winter had been steadily maintained below, where coolness and circulation are generally least expected . . . The fact is prodigious.

Sir Francis Dillon Bell, Agent General for New Zealand in London, was prompted to write to *The Times* pointing out that the British farmers should welcome the *Dunedin's* arrival. He also noted that huge quantities of meat were being imported to the country, especially from the States, and asked

Is it not better, since you must needs have such huge a supply, that you should get as much as you can from your own colonies rather than from foreign countries? We in New Zealand, at any rate, mean to send you plenty of it, and you must regard this first shipment as only the harbinger of a great trade . . . how much better it is for England to receive the food from her own kith than from those who may one day be her enemies.²⁷

Even so there was a discussion in the House of Lords on 13 June 1882 over the issue of the effect of shipments of refrigerated produce on English farmers and consumers. Lord Lamington was concerned that English producers would be placed at a disadvantage due to the importation of frozen meat. He said that butchers were able to buy frozen meat at much cheaper prices than the home produced meat and many retailers were selling it as prime English or Scottish mutton. In one instance such a 'fraud' was discovered but the outcome for the purchaser of the mutton was distinctly favourable—

A gentleman in a fashionable neighbourhood discovered on the shank of a leg of mutton when brought to a table a very small piece of paper, which, on being unravelled, contained the name of the New Zealand Frozen Meat Company. Calling on his butcher next day he said, 'Mr So-and-so, you sent me New Zealand mutton yesterday!' The butcher, thus challenged, thought it best to admit it, and said, 'Oh, yes, sir, certainly I did'—'Then,' said the customer, 'of course, you are not going to charge me English price.'—'Oh,

Totara Estate

certainly not,' said the butcher, and the little *contretemps* was easily adjusted. The customer, however, said on leaving 'I tell you what, though, Mr Butcher, you haven't sent me such a good bit of mutton as that for the past six months!'²⁸

Lord Lamington did not want the new freezing trade to end but he felt that all meat sold in the butcher shops should be correctly labelled as to its country of origin. Lord Sudely, in reply, stated that the Government did not think it necessary or advisable to introduce a bill to compel retail dealers to specify the description of the meat they were selling or to impose heavy penalties on any retailer who sold imported meat as home produce.

By 2 June nearly half the cargo had been sold at an average price of 6½d. per lb. The Smithfield salesmen declared that if the carcasses had not been frozen they would have fetched 3d. more per pound on the English market. Mr Shand's very heavy sheep 'attracted much attention but only realised 5d/lb', although the Londoners were amazed that a sheep could weigh 180 lbs without artificial feeding. Every night 100 sheep were sent to Glasgow and they realised 6¾d. per lb for mutton and 7½d. per lb for lamb—slightly higher than in London. On the other hand the Scottish butchers complained that the sheep were too heavy although they were also said to be 'exactly what suited the London market'. The pigs averaged 6½d. per lb and 'were considered quite as good as English pigs'. The salesmen also stated that 'there could not be any improvement in the method of slaughtering and sending this cargo Home, and that the greatest credit is due to those who superintended operations here and to Captain Whitson'.²⁹

Indeed the successful sale of the meat was due in large part to W. S. Davidson's efforts and he was described by one observer as 'indefatigable'³⁰. The Albion Shipping Company recognised Captain Whitson's sterling work in ensuring the safety of the cargo by forwarding him £20. The Land Company, for whom a greater service had probably been done, gave him one hundred guineas to acknowledge 'the

A Bold Venture

very skilful & thoughtful way you have assisted in this the first trial of refrigeration on board a sailing ship.'³¹

When the final outcome of the shipment was known Davidson wrote to the *Otago Daily Times* giving full details of the voyage and the disposal of the meat at Smithfield. As will be seen in the table below the Land Company made a profit of £4,216.11s.11d. The Company also later received the £500 Government bonus for the first 100 tons of refrigerated meat exported from New Zealand arriving in Europe in a saleable condition.

Sheep	Weight		Per Sheep	Per lb.	
No	lb.		£. s. d.	d.	£. s. d.
3,136	244,073	sold in London	2 2 7	6.56	6,675 9 8
373	29,415	sold in Glasgow	2 3 0	6.54	801 13 6
8	477	sold to Captain	1 9 9	6	11 18 6
3	—	to order of manager	2 2 7		6 7 9
1	—	condemned			
3,521					
Lambs:					
425	16,846	sold in London	1 1 4	6.45	454 0 11
24	950	sold in Glasgow	1 5 0	7.60	30 1 0
449					7,978 11 4
Pigs:					
22	1,164				31 2 11
					£8,009 14 3

CHARGES	£. s. d.
Calico for bags.....	91 8 9
Keeping meat frozen in <i>Dunedin</i> after her arrival in London	43 11 9
Freight on 296,477 lb	2779 9 5
Insurance on £7,500	414 13 9
Supervision during discharge, telegrams etc.	29 13 6

Totara Estate

Dock Company's account for discharging	78	5	7
Carriage to Smithfield	65	10	0
Carriage 400 sheep London to Glasgow	51	4	3
Sale, commission, bank charges, etc	239	5	4
		£3,793	2 4
Net proceeds		£4,216	11 11

Davidson noted that the sheep sent to England had doubled in value. If they had been sold on the Dunedin market in February 1882 they would only have netted 11 or 12 shillings whereas he estimated that the Company would receive about £1.1s.8¾d. each, after charges had been paid and the value of the skins and tallow was added. Between eight and ten sheep were given away but these were entered at the same average price of those sold. Davidson also noted that the spectacular success of the *Dunedin's* shipment was due in part to its arriving when meat supplies were low at Smithfield. As an appendix to his letter Davidson added a report from the firm which handled the selling of the meat, John Swan and Sons.

When we had the pleasure of returning you account-sales of this cargo, we promised to give you our opinion in regard to its condition and the future prospect of its finding a market in this country . . . Directly the meat was placed upon the market, its superiority over the Australian meat struck us, and, in fact, the entire trade. The week previous to the arrival of the *Dunedin*, there was a cargo of sheep from Australia, a large proportion of which was condemned and scarcely any was in a position to take the market. The salesmen, therefore, in the London meat market, prior to the discharge of the *Dunedin* were doubtful of the mutton either being fairly marketable, or at least, if so, that it would seriously disappoint the expectations of the importers. Our experience is that it took a little time before its quality was sufficiently recognised, and the earlier sales were improved upon as the discharge proceeded, and eventually it became a matter of fact that of all the foreign meat placed upon the London market, from whatever country, this cargo ex *Dunedin* was decidedly, either in condition or quality, by far superior to any other . . . on the whole, we venture to pronounce the importation of mutton from New Zealand as carried through in the case of the *Dunedin* a most decided success. With regard to the future, we should say that with the resources of New Zealand as a meat-producing country, and the development of science, there exists a bright future for those engaged in the production of cattle and sheep in that Colony.

Sold on Account of
Messrs The New Zealand & Australian Land Co. Limited

in
London & Meat Market.

Cattle. 3562 Sheep. 922 Pigs
Ex *Edmedin* no marks.

BY

JOHN SWAN & SONS,

LIVE STOCK AGENTS,

37 LAURISTON PLACE, EDINBURGH,

And at 237 DUKE STREET, GLASGOW.

Date	Shops	Lamb	Pigs	Salesmen	Weight Hides lbs	Wool	Grass	Salesmen Commission	Nett
May 27	28			Graham	133	3 1/2	27 12 6	11 1	27 1 5
	4	29		Gaseyne	187	7	38 1 4	15 2	37 6 2
	24	23		Hard	354	2	66 14 4	1 6 9	65 8
		51		Archer	272	3	54 8 1	1 1 9	53 6 4
	5			"	52		10 1 6	4	9 17 6
		22		"	145	4	31 2 11	12 6	30 10 5
	13	63		Hicks	441	5	92 4 11	1 17	90 7 11
30 th		13		Frost	64	7	14 17 1	6	14 11 1
		20		Hicks	102	3	22 2 5	8 10	21 13 7
		13		Archer	59	7	12 2 10	4 10	11 18
		11		Fitter	57	1	14 . 6	5 8	13 14 10
		13		Gaseyne	67		13 8	5 6	13 2 6
31	26	4		Archer	222	6	46 3 5	18 6	45 4 11
	8	22		Gaseyne	202	5	43 7 11	17 6	42 10 5
		53		Hicks	257	6	55 16 10	1 2 4	54 14 6
	27			Frost	264		51 5 8	1 . 6	50 5 2
		9		"	49	6	10 16 1	4 4	10 11 9
	22			Fitter	383	5	70 19 2	1 8 5	69 10 9
	29			"	142	3	31 2 9	12 6	30 10 3
129	381	22			3461	1	£706 8 8	£14 3 2	£692 5 6

Part of the original Sale Accounts of the First Shipment

Totara Estate

As well the *Otago Daily Times* recognised

The satisfactory results of the sale of the first direct shipment of the frozen meat from this port must remove any doubts that linger in the mind of the public as to the desirability of making a cargo of this nature a regular item of export from this Colony.³²

Honouring A Pioneer

Our first shipment so carefully planned by William Soltau Davidson and brought to completion with the help of Thomas Brydone, John Macpherson and Captain Whitson was indeed a great success, transforming as it did the future of this country. As David Murray, Chairman of the Land Company's Board of Directors noted shortly after Davidson's death in 1924

Mr Davidson [in organising the 1882 shipment] exhibited one of the most striking features of his character and one of the principal elements of his success, the genius for taking pains. Not a point was overlooked, nothing was taken for granted, no direction was omitted. Many able men worked along with him; he co-ordinated the efforts of all and achieved success.³³

Despite this it is Thomas Brydone who has often been remembered as the 'father' of New Zealand's frozen meat industry. He was the man on the spot and in a sense he personified the Land Company in New Zealand. He was one of the founders of the Otago Agricultural and Pastoral Society and served as director to several local companies, including the New Zealand Refrigerating Company. As Hewland noted, Brydone was an important local figure:

[He] was in physical and many other respects a prominent, well-rounded manager, of whom the people in the south, particularly south of the Waitaki, are today still very well aware.³⁴

The Oamaruvians held him in such high esteem that in 1907 a limestone memorial was erected on Totara Estate's Sebastopol Hill.

But in retrospect it is not difficult to see that Thomas Brydone was second in command of the project. The leader was William Soltau Davidson who had the vision, the driving

A Bold Venture



William Soltau Davidson, from a painting by Sir James Guthrie

force, the determination and the opportunity to initiate the frozen meat industry in New Zealand—and in so doing he has left us forever in his debt. The Totara Estate Centennial Park is a lasting tribute to this great man.



Land Company Managers of the 1890's. Clockwise from man seated on the floor: Thomas Macaulay (Moeraki), William Cowan (Acton), Donald MacDonald (Edendale), James Mitchell (Clydevale), John Macpherson (Totara), Donald MacFarlane (Hakataramea, Kurow, Round Hill), Alex Macpherson (Pareora), Charles Orbell (The Levels), and seated in the centre Thomas Brydone, New Zealand Superintendent

Ship's crew 1890, said to be of the *Dunedin*



Totara Estate 1882-1982

Later Shipments from Totara

Encouraged by the *Dunedin's* success the Land Company enlarged the killing complex at Totara and the freezing capacity of the *Dunedin*. The ship was chartered nine more times for the Land Company and another Shaw, Savill and Albion Company (the two former rivals merged in 1882) vessel the *Marlborough* was chartered five times. More than fifteen major consignments were prepared at Totara up till 1890, the stock being drawn from various other Land Company properties. It seems that the Land Company preferred to employ sailing vessels for these consignments although meat was sent to Britain in steamers chartered by other concerns such as the New Zealand Refrigerating Company.

In 1884 the *Dunedin* loaded her first cargo from Oamaru. Since Totara was only 5 miles from that port the arrangement would have greatly reduced the risk of carcass deterioration during the 70 mile journey to Port Chalmers. Because the *Dunedin* was the biggest ship ever to visit the port, Oamaruvians viewed the event as one of great significance and they expressed their appreciation to Thomas Brydone by presenting him with an illuminated address and Captain Whitson was given a gold compass for his watch chain. The local press took some interest in the activities on board ship, and in informing their readers of the freezing process, they noted that the temperature in the chambers was about 8 to 10 degrees below freezing point and that it was noted every four hours in a special book. Loading the successive shipments took at least one month and the process was simplified by the railway tracks being along the wharf.

Totara Estate

When Captain Whitson returned to Oamaru in 1885 to load another cargo his friends presented him with a diamond ring as a token of their esteem. One of the town's prominent citizens George Sumpter described Whitson as 'one of the most courteous and accommodating captains' that had ever visited the town and said that the people of Oamaru wished to thank him for his courage in bringing the *Dunedin* to their port thereby helping to establish a good reputation for the facilities.

The *Dunedin's* sixth shipment departed for Great Britain on 3 May 1886 but this time Captain Whitson was not in command. He had been suffering from bronchitis and had stayed in Port Chalmers on doctor's orders while his vessel was being towed up to Oamaru to begin loading. He later rejoined his ship in Oamaru but died suddenly at the Criterion Hotel on 4 May. By way of an obituary the *North Otago Times* noted:

Of the deceased gentleman, we may say that few men have made so many friends, and so few have returned such lasting friendships by simple acts of courtesy and good nature as Captain Whitson has, and when we say that the regret will be general, it is not an empty statement, for Captain Whitson had only the capacity for making friends . . . Even in Oamaru, where his stay has only been during the periods when his ship was loading, he has made a large circle of acquaintances, whose sorrow at his death will be of the sincerest character.

The Captain was buried in Dunedin's Northern Cemetery in a plot owned by the Albion Company.

When the *Dunedin* left Oamaru she was under the command of Captain Roberts and up till 1890 the vessel made four more shipments. On the last voyage, however, the ship never reached her destination and it is presumed that she struck an iceberg or foundered in a storm off Cape Horn. At the time the respective captains of the *Dunedin*, *Marlborough*, *Kylemore* and *Auckland* had a sweepstake of £50 on whose ship would be the first to reach England but the *Dunedin* and *Marlborough* were destined never to complete the race. The *Kylemore* won by half a tide.

Totara Estate 1882-1982

'Thus,' noted Davidson, 'ended the Land Company's successful experiment which set a new trade in motion; which added enormously to the value of land in New Zealand; and which did much towards expediting the better feeding of the population at home.'³⁵ Although the Land Company continued to export its stock no more ships were specially chartered after the tragic loss of the *Dunedin* and *Marlborough*.

Life on the Estate

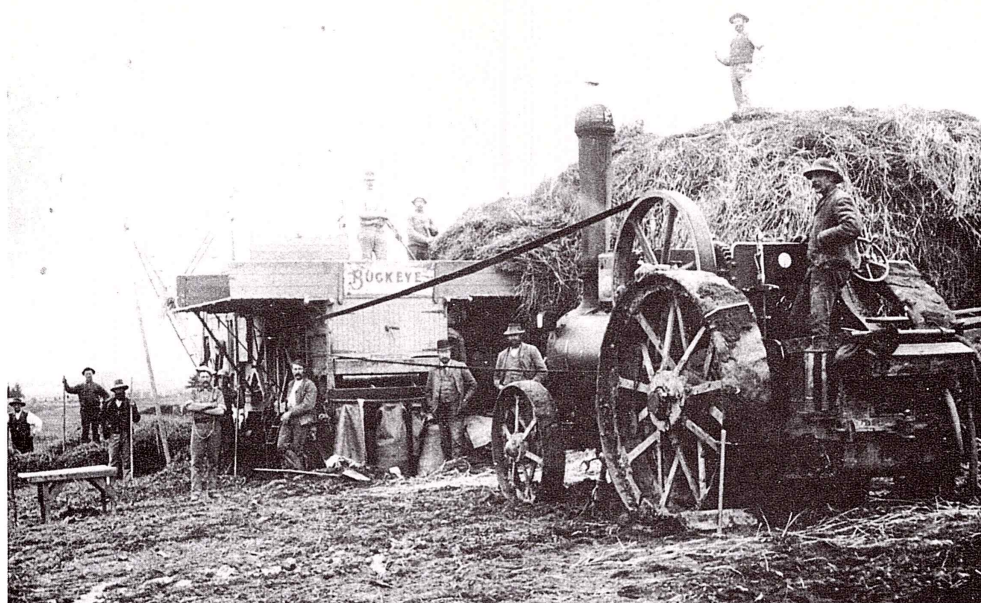
The preparation of the meat consignments were major events in the farming calendar but they only occupied one or two months out of the whole year. There were still sheep to be shorn, land to be broken up and crops to be sown. In later years a pedigree herd of Polled Angus cattle was also kept at Totara breeding high quality beasts for the Australian market.

Because of its dry climate and fertile soils Totara was excellent grain growing country and hundreds of acres of wheat, oats and barley were sown annually as well as potatoes, turnips and mangolds. The Company did not have enough permanent hands to work all of the land so they leased some to cropping contractors. These men would cultivate the land, take off one or two crops, and return it to the Company in stubble. In this way the Company had its land broken up and made ready for permanent pasture and men of limited means were able to gain experience on the land.

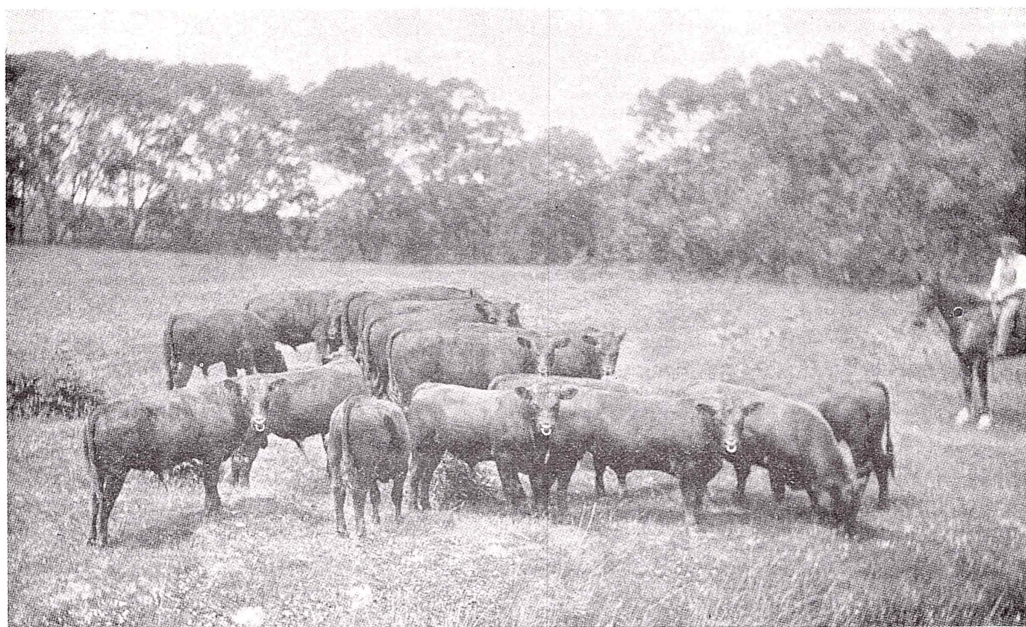
The estate was a 'haven for characters'.³⁶ Sherry McIntyre, a clerk employed on Totara in the early years of this century, was a talented sketcher. Much of his work found its way into the *Otago Witness*, a popular weekly newspaper which had a large illustrated section. Sherry found New Zealand's 'men of the road' a great source of inspiration and he did numerous sketches of swaggers.



10 Massey-Harris Binders at work on Totara Estate. The photo was taken by another of John Macpherson's sons, Duncan. It was published in the *Otago Witness* of 15 August 1906 where it is noted that 1491 acres were being harvested and 'Some of the crop was badly laid, but they lifted it splendidly—did capital work'



Threshing



Young Polled Angus Bulls on Totara Estate

Totara Estate

In the days when unemployment benefits were unheard of and before mechanization replaced the large labour force that was required to carry out the seasonal work on places like Totara, many men took to the roads in search of work. A blanket and a few personal items would be packed in a tent or sheet of oil cloth, tied up with string, and with a billy dangling from the swag he would set off down the dusty country roads. At busy times such as harvesting or turnip hoeing as many as thirty swaggers would turn up to find work at Totara. The swagger would be given a vacant bunk in the cookshop, or if there was none to spare, he would have to sleep in the chaff-house. Andrew Fyall was overseer and he had to be informed about any new men taken on as he kept their hours for the clerks. Fyall would have been a familiar sight around the estate smoking his pipe and riding his horse 'Blazer'. The Land Company had a policy of never turning away a swagger when there was no work without giving him a meal first. It was not unknown for men to set valuable haystacks alight in retaliation for not being given a job.

Bob Mitchell was another well-known figure in the Oamaru district. He wrote two books, one containing cures for a multitude of equine complaints and entitled *The Practical Colonial Horse-Keepers' Book of Recipes*. The other, *Rhymes and Rambles*, was an autobiographical piece in which Bob described how he made £115 from buying 'half-worn' horses in the yards and reselling them in Dunedin. Some of the proceeds were spent at the Totara Sale of 1879. He bought one acre of the famous thousand acre paddock and had two cottages built, which he rented out while he took a position at Moa Flat Station to care for two stallions. He returned to Oamaru in 1881 but it was not a good year for him

first I got capsized out of a buggy and broke my collar bone; next an old horse fell on the top of me and broke my leg. I was laid up for nine months. As I began to get better, one day while I was away at a horse sale, my houses took fire. I sold the land for fifty pounds, that cost me eighty-five.



"I'VE BEEN THAT VERY WINTER SUN
TILL FORTY TIMES RETURN."



Sketches of two famous swaggers by Sherry—Barney Winters (also known as Professor Whiterats because of his performing mice) and Edward 'The Shiner' Slattery. Unlike most swaggers The Shiner avoided work whenever possible but was nevertheless a popular figure on the roads of Otago



Bob Mitchell, the horse breeder and poet, as sketched by Sherry in 1904

Totara Estate

By September of the following year things must have taken a turn for the better because Bob, who was doing some harrowing for John Macpherson on Sebastopol Hill, was inspired to write

IT'S GRAND TO BE HERE.

The month is September, the scene is New Zealand,
Superb is the weather at this time of year;
Happy, contented, and healthy I feel, and
I inwardly mutter, It's grand to be here.

It's grand to be here, though heavy taxation
We pay on our imports, grog, baccy, and beer;
Small troubles beset the individual and nation
But take it right through, mate, it's grand to be here.

It's grand to be here: for soil or for climate
New Zealand's unrivalled—she has na' a peer;
She licks all creation, an' shure it's no lie, mate,
The gem of the world—it's grand to be here.

For reasons of space, and propriety, the rest of the poem could not be printed!

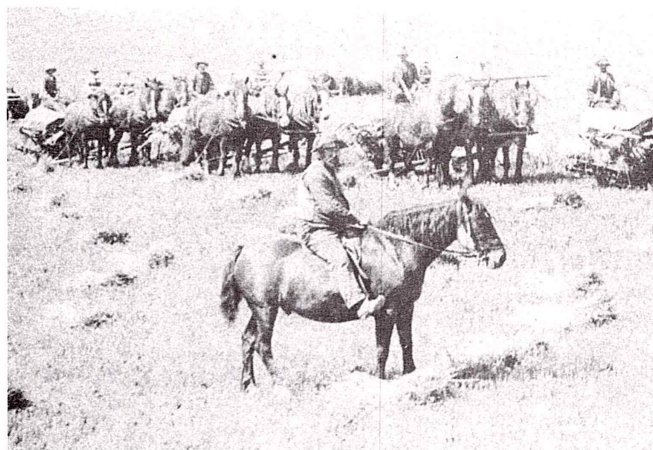
A six foot tall Asian named Jimmy Hoey was the station cook. His culinary skills were appreciated by the Macpherson children, who used to sneak brownie biscuits while the cook had his afternoon sleep, and by Thomas Brydone. Hoey was famous for his soup and a billy-full would always be sent for when the superintendent came to stay. The kitchen and dining room in the cookhouse now form the main display area of Totara Estate Centennial Park.

Sleeping accommodation was also provided in the cookhouse but the facilities were by no means sumptuous. The station provided bunk only and the men had to provide their own blankets. Mattresses were made of chaff-filled sacks, clothes were hung on nails in the walls and light was provided by kerosene lamps or candles stuck in bottles. Hot baths were an unknown luxury and the men had to make do with a basin of cold water from an outside tap.

Despite the obvious differences between the bunkrooms and the comfort of Totara House a very good relationship



Jimmy Hoey, the station cook, and Miss Lena McKellar, a frequent visitor to the Estate, standing at the kitchen door of the cookhouse



Andrew Fyall, overseer on Totara 1892-1902, on his horse 'Blazer'

Totara Estate

existed between the manager and the employees. When John Macpherson married Miss Jeannie Trotter in 1889 he gave a ball for the hands of the Totara and Ardgowan stations. The granary was decorated with chrysanthemums and evergreens and there was a large 'Welcome' in laurel leaves to greet the guests as they arrived. After an hour of dancing the employees presented the newly-weds with a valuable piano and one of their number made a speech in praise of Mr Macpherson

. . .Ladies and gentlemen, I can assure you Mr Macpherson is an A1 master. He is not one of those who rule with a rod or iron; and when reproof is required, he does it in a quiet, unostentatious manner, more like a friend. (Applause.) I have a pleasant duty to perform in asking you to accept of this piano as a present from the employees and others connected with this estate . . .We trust that it will be received in the same spirit in which it is given, and it will, we hope, long remain in your family as a memento of the good relationship which existed, and exists, between yourself and those employed on the estates of Totara and Ardgowan . . .³⁷

John's bride was a gracious and capable lady as she managed to combine running a large household, bringing up several small children and acting as hostess to the many parties held in the grounds of the House. Sunday Schools, Bowling Clubs and other similar organisations often held their annual picnics there and Mrs Macpherson made a name for Totara as a social centre.

Aftermath

Even before refrigeration made small scale farming possible the Land Company was prepared to sell off its estates in New Zealand whenever it was profitable to do so. Indeed W. S. Davidson noted in 1878

All the farming the Company can undertake at any time will be mere nothing as compared with the agriculture resulting from the sub-division, sale, or leasing of their estates; and it is impossible that a system can ever be introduced sufficiently detailed to render the huge and cumbrous possessions as productive as if 200 or 300 acres were occupied by a diligent and ever watchful farmer.³⁸



Mrs Jeannie Sinclair Macpherson, née Trotter (1864-1941)



Sunday Afternoon, Guests and Staff. On Sundays the clerks on the Estate would be invited to spend the afternoon at Totara House. John Macpherson is standing second from left and seated in front of him is Sherry McIntyre. On Sherry's right is Sheila Macpherson and on his left David Allan, another clerk. Mrs Macpherson is standing second from right

Totara Estate 1882-1982

To this end 7,500 acres of Totara were put up for sale in 1879, and further subdivisions were made over the years. By 1906 only 3,859 acres were left of the estate that was once over 14,000 acres in extent. The Kakanui Mill, which had been operated as a separate entity from the estate for many years was sold to the Clark Brothers in 1901. John Macpherson was able to buy Totara House and some of the adjoining land, the remainder being purchased by the Government. The land was subdivided into 26 farms of varying sizes and opened for selection on 25 March 1907. Some of those who bought farms at the sale already had experience of farming Totara land as they had worked as cropping contractors for the Company.

In later years the Company's policy was to withdraw gradually from the New Zealand farming scene and concentrate on its properties in Australia. The Land Company had made a significant contribution to New Zealand's development not only in introducing refrigeration but also in improving the quality of livestock, cultivating the land and generally paving the way for the small farmer.

John Macpherson continued to farm his Homestead Block of 658 acres until his retirement in 1920. For just over 50 years this small remnant of the estate was owned by the Ewing family but in 1973 it was bought by Mr and Mrs G. L. Berry.

Today the area just south of Oamaru that was once the Totara Estate is a prosperous farming community. Sheep and cattle farms as well as market gardens characterise the landscape around the Totara Estate Centennial Park where New Zealand's frozen meat export industry was born.

SKETCHES AT THE BIG SALE AT TOTARA ESTATE

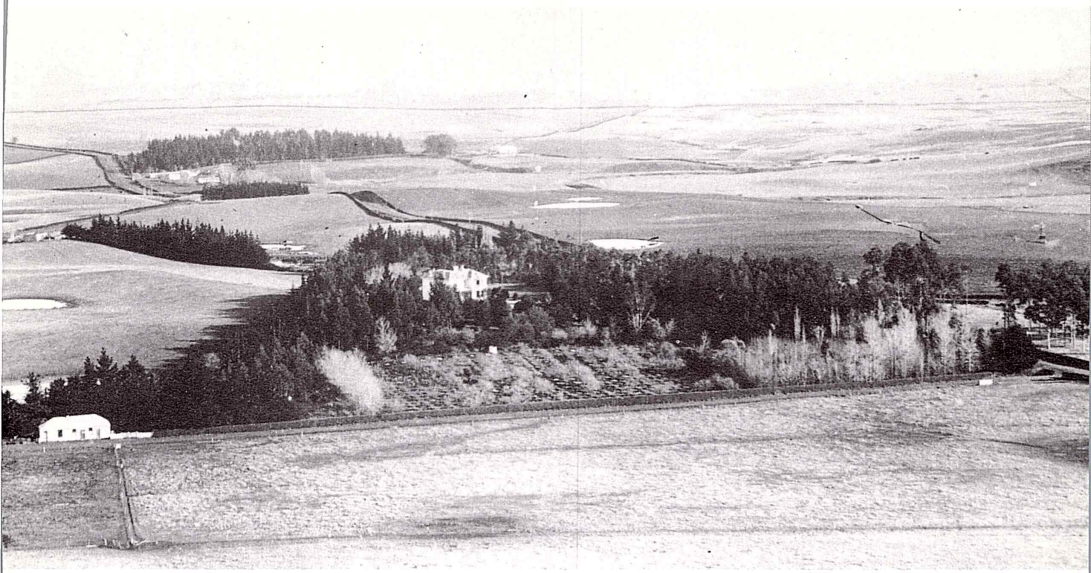
APRIL 4 & 5 '07

JOHN BATHURST ESQ

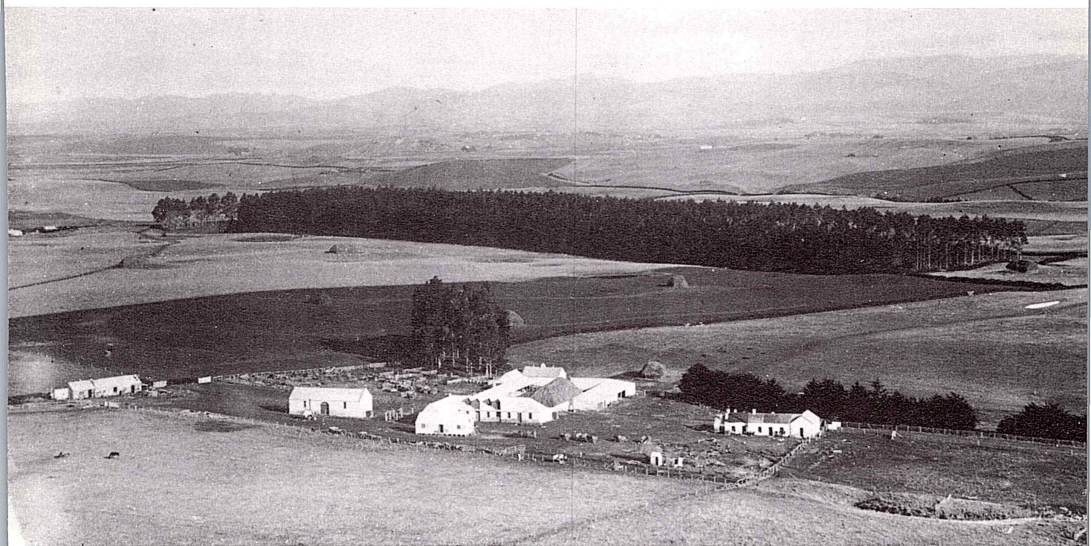
SOME FAMILIAR FACES



Sketches at the Big Sale by Sherry. On 4 and 5 April 1907 a clearing sale was held of the livestock and implements. It was, as the *North Otago Times* noted 'The last act in connection with an estate, the name of which has been associated with North Otago for some 40 years or more . . .' At top left Sherry has sketched Andrew Fyall



The Office and Homestead, Totara Estate



Panorama of buildings on the Homestead Block, Totara Estate. From left overseer's cottage (partly out of the picture), smithy, granary, chaff house, and stables behind, slaughtering complex, implement shed, cookhouse and office. The chaff house was removed to another property and the overseer's cottage, smithy and office have been demolished since the photo was taken. Notice the line which extends from the paddock behind the buildings to the middle of the picture. This is said to represent the marks made by successions of spring carts taking carcasses to the road leading to the Totara railway siding behind the plantation of trees

EPILOGUE

by N. C. Begg

This book has told the story of the Totara Estate, gem of the New Zealand and Australian Land Company's possessions. For its first thirty years it grew and developed as a sheep station on the fertile downlands south of Oamaru.

Its moment of greatness came in 1882 when its spring drays carried loads of sheep carcasses from Totara at the beginning of their long journey to Great Britain. The experimental shipment in the freezing chambers of the sailing ship *Dunedin* demonstrated that our perishable food stuffs could be safely transported across the world to the London markets. It signalled the start of the meat and dairy export industries which were to transform New Zealand life.

The first need was to increase the output of farm produce while maintaining or improving its quality and acceptability. The second was to build the facilities required to process, transport and market our farm products both at home and overseas.

An important step to increase production was taken in the 1890's when land reform aimed to 'burst up' the big estates 'to put the small man on the land'. Refrigeration had created a new situation where an industrious farmer working on as little as 50 acres could, by fat lambing or dairying, make a living for himself and his family. Land reform was as much an economic necessity as a politician's dream. More intensive farming also provided work for the thousands of unemployed who had been forced to walk the roads during the long depression of the 1880's. In twenty years round the end of the century an additional 40,000 men joined the rural work force as farmers or farm labourers and they found new ways to improve the quality and to increase the quantity of their pro-

duce. With the selective breeding of farm animals to develop the most appropriate strains, with new methods of preparing and fertilising the pasture lands and with the greater use of more efficient machinery the farmer has been able to meet the ever-increasing demand for his produce.

The financial returns from the increasing exports of meat and dairy products have been a major prop to our national economy for a hundred years. They have provided New Zealanders with a high standard of living and have enabled successive governments to improve the nation's health, education and social services. And there have been other changes, less tangible but no less important, which have sprung from these new farming practices. Generations of farmers working their own land for themselves and their families have been moulded by a life which demands ingenuity and innovation, hard work and self-reliance.

But refrigeration also brought the need to develop the means to handle the increasing farm production—the 'down-stream' activities. Processing the food stuffs began in Otago with the New Zealand Refrigerating Company (formed even before the successful voyage of the *Dunedin*) which built the pioneer freezing works at Burnside. Ten years later there were 17 freezing works and after another twenty years 31 works had been built to service all the country's sheep farming districts. At first sheep and cattle carcasses were exported whole but by 1981 about 90 per cent of our beef exports were shipped in boneless form—representing the changing methods used by the 44 slaughtering and processing works and the 26 packing houses. During the production season this sector of the industry employs about 35,000 people.

A prophetic article in the *Otago Daily Times* of 18 December 1867 had a vision of 'fleets of freezing vessels' plying between New Zealand and the Old World. A hundred years later the vision has hardened into reality. The names of such shipping lines as Albion, (later Shaw, Savill and Albion), the New Zealand Shipping Company, Blue Star and

the Port line and now the container ships of O.C.L., A.C.T. and the Shipping Corporation of New Zealand have become familiar to us as our refrigerated fleet has grown. What may be forgotten is that the ports of the main cities, and those of many provincial towns, were built with the purpose of loading ships with meat from the local freezing works. And in 1981 of the 770,000 tonnes of meat exported some 5,600 tonnes travelled in wide-bodied aircraft.

The marketing of exported meat has come a long way since W. S. Davidson anxiously watched surplus stocks being sold in London.

There were times when on Saturday nights, the East End of London was traversed by hawkers selling fore-quarters of mutton for 'an old song'—sometimes accepting a sporting price for the whole barrow load!³⁹

For many years Great Britain was our only overseas customer but now the New Zealand Meat Producers Board has literally a hundred different markets and must see that our exports meet the strict American hygiene requirements or comply with the Muslim slaughtering techniques for the Iranian trade. Profits from the sale of the *Dunedin's* cargo in 1882 amounted to the sum of £4,200 sterling, a figure which may be compared with the 2,000 million dollars earned by our meat exports in 1981.

During the last hundred years, in which New Zealand has become the world's biggest supplier of sheepmeats, the Totara Estate has reverted to its quiet, pastoral peacefulness. On a drowsy summer afternoon it will not be easy to remember that this was the busy starting point of a giant industry which, as the Otago historian A. H. McLintock reported, after some early difficulties

triumphed over its initial reverses until, from out the gloom of falling markets and unemployment, it emerged as a great commercial organization which revolutionized the economic development of the colony.⁴⁰

NOTES

A full set of notes and references has been deposited in the Hocken Library, Dunedin and the New Zealand Historic Places Trust, Wellington. Authorities cited in the text are as follows:

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6. P. D. Hewland, 'Davidson and Brydone Founders of the New Zealand Meat Export Industry' *Proceedings of the New Zealand Society of Animal Production* Vol. 18 1958, p.65. Reproduced with the permission of the publishers Editorial Services Ltd, Wellington.
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11. S. D. Macpherson, 'The Foundation of the Frozen Meat Industry in New Zealand.' *Provincial Pride* No. 8 August 1962, pp.21-23. Reproduced with the permission of the Otago Early Settlers' Association.
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18. Mr W. Macpherson, Wanaka, personal communication, 1981.
19. A. M. Malcolm and A. L. Taylor, 'History of the Frozen Meat Trade.' MS. Also published by the Meat Export Trade 75th Anniversary Committee in the Oamaru Mail February 1957. Made available by Mr J. Mitchell, Weston, Oamaru, and reproduced with the permission of Waitaki New Zealand Refrigerating Company Ltd.
20. Mr D. Ewing, Reidston, Oamaru, personal communication 1980.
21. 'Seventy-Fifth Anniversary of an Important New Zealand Industry.' *New Zealand Railways Staff Bulletin* Vol. 6 No. 1 Jan-Feb 1957, p.9.
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26. *Otago Daily times*, 16 August 1882.
27. Dorothy Laird, *Paddy Henderson: The Story of P. Henderson and Company, 1834-1961* Glasgow, 1961 see Chapter 6 for the full text of these quotations.
28. *Otago Daily Times*, 7 February 1883.
29. *Otago Daily Times*, 16 August 1882.
30. John Sanderson to John Roberts (of Murray, Roberts and Company) 15 June 1882 Sir John Roberts papers, Hocken Library, Dunedin.
31. W. S. Davidson to Captain John Whitson, no date. Supplied by Shaw Savill Ltd, Wellington.
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CONVERSION TABLE TO METRIC AREAS

Area					
<i>Acres</i>	<i>Hectares</i>	<i>Ac</i>	<i>Ha</i>	<i>Ac</i>	<i>Ha</i>
1	0.40	40	16.19	700	283.28
2	0.81	50	20.23	800	323.75
3	1.21	60	24.28	900	364.22
4	1.62	70	28.33	1000	404.69
5	2.02	80	32.37	2000	809.37
6	2.43	90	36.42	3000	1214.06
7	2.82	100	40.47	4000	1618.74
8	3.24	200	80.94	5000	2023.43
9	3.64	300	121.41	6000	2428.11
10	4.05	400	161.87	7000	2832.80
20	8.09	500	202.34	8000	3237.49
30	12.14	600	242.81	9000	3642.17

Length Eight kilometres equal approximately five miles.

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Front cover
'Totara Farm Buildings'
from an oil painting by Colin Wheeler
Reproduced by courtesy
Otago Division of Federated Farmers

These buildings have now been restored
by the New Zealand Historic Places Trust as part of
the Totara Estate Centennial Park